

A Differential Play of Forces

Transcendental Empiricism and Music

Torbjørn Eftestøl



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Music is thus no longer limited to musicians to the extent that sound is not its exclusive and fundamental element. Its element is all the non-sound forces that the sound material elaborated by the composer will make perceptible, in such a way that we can even perceive the differences between these forces, the entire differential play of these forces. We are all faced with somewhat similar tasks. In philosophy, classical philosophy presents itself with a kind of rudimentary substance of thought, a type of flow that one then attempts to submit to concepts or categories. Yet, philosophers are increasingly seeking to elaborate a very complex material of thought to make sensible forces that are not thinkable in themselves. (Deleuze, 2007, p. 160)

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Abstract

This dissertation is a philosophical study of transcendental empiricism in musical contexts. It presents a reading of Gilles Deleuze and Félix Guattari's philosophical apparatus and explores how music can be thought of as functioning in the operation Deleuze terms 'transcendental empiricism'.

Central to transcendental empiricism is the idea of an encounter with intensive difference and the consequent experience of intensive and virtual forces. The thesis sets out to explore this idea in three interwoven steps.

First, it develops transcendental empiricism as a philosophical framework, applying the philosophy of Deleuze and Guattari more or less as a whole. Then, in the second part of the thesis, music is discussed as a way to encounter intensive forces in the context of this philosophical apparatus. Here, the distinction between covered and unmediated intensive forces becomes central. The thesis argues that an allegedly direct encounter with intensive forces is at stake in music seen through the optics of transcendental empiricism. Furthermore, the thesis argues that this kind of encounter or event may lead to a transformation of the very conception of aesthetic experience.

The third part of the thesis explores transcendental empiricism in the thinking and poetics of three composers of the twentieth century: Arnold Schönberg, Olivier Messiaen and Giacinto Scelsi. The thesis develops three 'images of thought' corresponding, respectively, to the composers' expressed theoretical ideas, setting out to identify central concepts from Deleuze and Guattari's philosophy in each composer's thinking. First, Schönberg is found to be occupied with music as expressive of the so-called Idea, and I read this in light of Deleuze's conception of the Idea as a virtual multiplicity in an intensive space. Second, I read Messiaen's ideas about music and dazzlement in light of Deleuze's concepts of microperception and time as a virtual force. Third, Scelsi is found to be concerned with the tone-monad, which I conceptualize as a field of intensive forces in the Deleuzian sense, and I suggest its epistemological equivalence to be a state of pure perception.

The very different ideas found in the study of each composer are suggested as driving forces in their respective musical thinking; nevertheless, despite their differences, each of them is read as occupied with music as an experimental site of transcendental empiricism.

The dissertation thus aims to contribute to the philosophy of music by presenting a constellation between transcendental empiricism and ideas about music.

Sammendrag

Avhandlingen *Kreftenes differensielle spill – Transcendental empirisme og musikk* er en filosofisk studie av transcendental empirisme kontekstualisert gjennom musikk. Den presenterer en lesning av Gilles Deleuze og Félix Guattaris filosofiske apparat og utforsker hvordan musikk kan fungere i den operasjonen Deleuze betegner som en 'transcendental empirisme'.

Sentralt er her ideen om et møte med en intensitet i det sanselige og en påfølgende erfaring av intensive og virtuelle krefter. Oppgaven tar sikte på å utforske denne ideen i tre stadier.

For det første utvikler den transcendental empirisme som et filosofisk rammeverk gjennom en lesning av Deleuze og Guattari. Deretter, i andre del av oppgaven, diskuteres musikk som et møte med intensive krefter i lys av oppgavens filosofiske apparat. Her blir skillet mellom mediert og uformidlet intensitet sentralt. Oppgaven argumenterer for at ideen om et direkte møte med intensive krefter er avgjørende for en diskusjon av musikk og transcendental empirisme. Videre argumenterer oppgaven for at en slik begivenhet vil implisere en transformasjon av den estetiske erfaring.

Den tredje delen av oppgaven utforsker transcendental empirisme i tenkningen og poietikken til tre komponister fra det tjuende århundre: Arnold Schönberg, Olivier Messiaen og Giacinto Scelsi. Oppgaven utvikler tre 'bilder' av tenkningen tilsvarende komponistenes teoretiske ideer, og tar sikte på å identifisere sentrale begreper fra Deleuze og Guattaris filosofi i hver komponists tenkning. Schönbergs utsagn om dodekafoni blir lest i lys av hans Goetheanistiske tenkning omkring musikk og Ide, og jeg knytter dette til Deleuzes oppfatning av ideen som en virtuell mangfoldighet i et intensivt rom. For det andre leser jeg Messiaens ideer om musikk og 'det blendende' i lys av Deleuzes begreper om mikroperspeksjon og tid som en virtuell kraft. For det tredje blir Scelsis musikalske tenkning knyttet til begrepet om 'tone-monaden' konseptualisert som et felt av intensive krefter, og jeg foreslår at dens epistemologiske ekvivalens er en tilstand av ren persepsjon.

De svært forskjellige ideene som finnes i studiet av hver komponist er foreslått som drivkrefter i deres respektive musikalske tenkning; Ikke desto mindre, til tross for deres forskjeller, blir hver av dem lest som opptatt av musikk som et eksperimentelt sted for en transcendental empirisme.

Avhandlingen har som mål å bidra til musikkfilosofien ved å presentere en konstellasjon mellom transcendental empirisme og ideer knyttet til musikk.

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1 Introduction

Aesthetic experience occupies a central role in the philosophy of Gilles Deleuze and Félix Guattari. Art can function as a complementary practice to the work of philosophy and, as such, an integral part in the creation of what Deleuze terms transcendental empiricism. In his major work *Difference and Repetition*, Deleuze describes transcendental empiricism as an encounter with intensity *in itself*, leading to an apprehension of the virtual. This encounter opens thinking to what Deleuze and Guattari call an anorganic, intensive life.

Art harbours this radical potentiality of intensive encounters, bringing one to the point where one apprehends ‘not a sensible being, but the being *of* the sensible’ (Deleuze, 1994, p. 140). Music can be an important part of this process, and in Deleuze’s later collaboration with Félix Guattari, music is explicitly said to enable a direct grasp of intensive forces. Deleuze and Guattari claim that music from what they call the ‘Modern Age’ especially aspires towards this aim.

This dissertation is a philosophical exploration of transcendental empiricism in a musical context, seeking to understand how music can be thought of as giving rise to intensive encounters. It does so in three stages. First, it presents a reading of transcendental empiricism as a philosophical framework. It then situates basic concepts of Deleuze and Guattari in relation to musical experience. Thirdly, it explores the world of ideas of three composers from the twentieth century in relation to transcendental empiricism. That is, by reading their poetics, theories and ideas I aim to elucidate how their musical thinking can be understood as engaged with central problems of transcendental empiricism.

This thesis thus centres on the transcendental problem of a direct experience of intensity and virtuality, and I study music not as actual works and compositions, but as the context or medium for an exploration of this problem. The goal of this thesis is to understand the economy of concepts involved in transcendental empiricism, explore how an encounter with intensity can be theorized in music and determine how it can be understood as a constitutive idea in the musical poetics and thinking of three composers.

1.1 Methodical Approach and Trajectory of Thesis

The trajectory of this thesis begins with a general discussion of transcendental empiricism in Deleuze and Guattari’s philosophy (Chapter 2), before considering the philosophical problematization of music and intensity (Chapter 3). In Chapters 4–6, more specific investigations

are conducted, in which the problem is explored through the ideas, poietics and musical thinking of Arnold Schönberg (1874–1951), Olivier Messiaen (1908–1992) and Giacinto Scelsi (1905–1988). Chapter 7 summarizes and discusses the preceding findings. While Chapter 2 and 3 develop a philosophical reading and discussion of central concepts in relation to transcendental empiricism and music, Chapters 4 to 6 are based on a more constructivist or synthetic approach.

In exploring how the idea of a direct encounter with intensive forces and virtualities can be seen operating in the musical poietics of the various composers, I have taken inspiration from the philosopher Éric Alliez's approach in his book *The Brain-Eye, New Histories of Modern Painting*. In it, he states that

the primary task of writing is to explore and to map out in depth—sometimes in the most minute detail—not so much images as the registers of a plastic thought in action (that of each of the painters studied). (Alliez, 2016, p. xvii)

As the translator Robin Mackay writes in the preface to the work, Alliez thus creates 'portraits of the artist as philosophical persona' (Alliez, 2016, p. ix). In following this approach and transposing it onto the musical domain, I have taken the three composers' writings, as well as statements and claims made about music, composition and musical experience, and used these texts as material for a creative construction that seeks to analyse their thinking in relation to the underlying problem of this thesis. As such, although I rely on and attempt to understand their ideas and philosophical-aesthetic positions, I am not primarily seeking to represent these positions or opinions on musical and philosophical matters. Instead, through these interpretations, I aim to outline the contours and elements of what Deleuze calls an image of thought.

By the image of thought I don't mean its method but something deeper that's always taken for granted, a system of coordinates, dynamics, orientations: what it means to think, and to 'orient oneself in thought.' (Deleuze, 1995, p. 148)

Everyone has an image of thought, Deleuze says, and in philosophy, the image of thought guides the creation of concepts. An image of thought is also operative in the creation of art, as Deleuze mentions concerning Resnais and Syberberg in cinema. The problem thus becomes how to find and make visible an image of thought centred around my problem. To address this issue, I have studied the composers' statements about compositional techniques, musical experience and more general approaches to sound and sensation and used these ideas and words as source material for a philosophical reading. That is, I have read their statements in

conjunction with philosophical ideas that can accommodate their claims. In doing so, I have made explicit things that are often otherwise only implied. I have also looked at the composers' inspirations and influences and developed the ideas, philosophical positions and references made to other authors into a more consistent image of thought. These conjunctions of ideas have been considered and woven together with central topics from Deleuze and Guattari's philosophy, and through this synthesis, I seek to use the composers' poietics and the images of thought that come to expression as basis for an exploration of the idea of a direct encounter with intensive forces and virtualities.

One could ask: why study the poietics and ideas of the composers and not their actual musical compositions? Moreover, how reliable is the material?

In response to the first question, the nature of the problem I explore is philosophical and even metaphysical, and its solution is not found in the analysis of any given element (empirical experience or structural analysis of a work). The problem must therefore be philosophically constructed. The question of intensive difference as 'experience' is philosophically situated on the very limit, neither phenomenologically nor objectively present, and I have sought to approach it through a transversal movement between ideas about compositional construction and technique and notions of sensation, experience and experimental operations, which together can circumscribe an image of thought through which the idea of music as transcendental empiricism can emerge.

Turning to the second question, one might wonder how reliable this approach is, considering that it takes for granted material that could be argued to represent intentions, opinions and personal experience – or, even worse, delusions – that may have weak consistency and perhaps little relevance to the composers' actual, created music. While it could be true that the intentions and theoretical claims of composers have little relevance for studying and experiencing their actual music, what I explore in this thesis is ideas and concepts about music as transcendental empiricism. I thus do not argue that their music necessarily effectuates these ideas. Of course, I do hope and consider that the interpretations and concepts I develop are relevant for engaging with actual music, and I hope this work can prompt new ways of looking at the works of these composers. However, that is not the object of study, and testing the degree to which these concepts relate to the actual music will be up to each reader. Furthermore, on a general level, I consider Deleuze's evaluation of the artist's insight into the nature of their work to be supportive of this approach:

In general, when artists talk about what they do, they have extraordinary modesty, self-imposed rigor, and great strength. They are the first to suggest strongly the nature

of the concepts and affects emanating from their work. A painter's texts therefore operate much differently than his or her paintings. When you read the interviews, you always want to ask further questions, and since you know you won't be able to ask them, you have to get by on your own. (Deleuze, 2007, p. 185)

As to the possible objection to the potential fragmentary and haphazard nature of the composers' claims, it is precisely the goal of my reading to construct consistency by explicating, joining and suggesting ideas that can bring the composers' musical thinking into connection with the underlying problem of the thesis.

Finally, there is the question of the truth-value of the composers' more idiosyncratic and speculative claims. The central concepts I engage, such as Messiaen's dazzlement, Scelsi's interior of tone and Schönberg's notion of a unitary musical and perceptual space, have all been treated in the secondary literature. When I employ these concepts in my philosophical synthesis, I do so against the background of this discourse, and I will refer to some of this literature in the opening section of each chapter on the composers. However, as the reader will see, I employ these concepts with their intensive and experiential over- and undertones in my philosophical synthesis, bypassing the question of their truth-value. The critical question about the validity of their claims is bracketed, and the text incorporates these claims at face value. This is possible on the same grounds as argued above. That is, I focus on the idea of music as transcendental empiricism, and on this level, the composers' claims of transgressive and intensive experiences are relevant. They provide a 'problematic' but also challenging element to the philosophical inquiry that I consider both relevant and stimulating. While I remain agnostic as to whether Messiaen actually dissolved his ego in a dazzling breakthrough towards the beyond or whether Scelsi did in fact perceive the life-force of the palm tree outside his house, such idiosyncratic claims belong to the material of ideas in the exploration of this thesis. On the level of the investigation, the critical element is not whether their professed experiences and capacities correspond to actual experience (even if, at the bottom line, this *is* the fundamental critical question) but to what extent their musical thinking can be grasped as a consistent image of thought that can accommodate the prospect of music as transcendental empiricism.

As a study of ideas, this research is therefore in some sense independent of the question of the truth and accuracy of the composers' statements. Furthermore, as part of developing the discourse, these claims also function as 'provocations', questioning implicit notions of what is possible and impossible. Deleuze and Guattari's many references to esoteric strains of thought and authors' transgressive experiments and experiences can also be taken as support for including elements such as these. After all, the problematization of music and transcendental

empiricism that this thesis seeks to enact has the ultimate goal of problematizing the horizon of real experience, and in such an undertaking, an individual's claim to transgressive and impossible 'experience' can bring life to philosophical notions such as immanence, intensity, virtuality and the body without organs (BwO).

This brings us to the choice of composers. In the present dissertation, I have chosen Arnold Schönberg, Olivier Messiaen and Giacinto Scelsi as three cases through which to explore my question. Since my goal is to test Deleuze and Guattari's claim on composers whose musical thinking can be related to it, the first criterion was simply relevance. In *Music After Deleuze*, Edward Campbell comments:

The composers whose music and ideas work most within Deleuzian terms are those who first molecularize, deconstruct or dissolve existing musical material, who attempt to empty it of existing connotations or who strive to use familiar sounds or musical gestures in unfamiliar ways. (Campbell, 2013, p. 148)

Schönberg, Messiaen and Scelsi can each be related to this general characteristic. Furthermore, all three have said and written quite a lot about their work and musical thinking, thus providing sufficient theoretical material. While Messiaen and Schönberg have been treated in the secondary literature on Deleuze and Guattari and music, I am not aware of such work on Scelsi's music and thinking.

Research often begins with an intuition or a preliminary hypothesis, and in my case the choice of composers was also based on the sense of a potential fruitful encounter between the world of ideas in the musical thinking of these composers and the philosophy of Deleuze and Guattari. Other composers would have given different results, and many would probably have been hostile to my philosophical project.

Relatedly, while I seek to test and explore the claim that Deleuze and Guattari make about music and intensity, my aim is not to determine the musico-*historical* validity of their epochal placement of this problem in the 'Modern Age'. I will return to this term, but for now, it can be said that it has both an aesthetic-epistemological and a historical function, and in the last sense, it can be approximated to the musical modernism of the twentieth century. As set out above, the problem is the idea of an encounter with intensive forces in the context of music, but insofar as Deleuze and Guattari also place this in a historical perspective, I turn to a discussion of their epochal reading of music history in Chapter 3, referring as well to some of the criticism levelled against this reading.

1.2 Material and Literature

This dissertation rests on my reading of the philosophical position and operation that Deleuze terms transcendental empiricism. The basis of this work is mainly Deleuze's *Difference and Repetition*, but I also include material from Deleuze and Guattari's joint collaborations, *A Thousand Plateaus* and *What is Philosophy?*, as well as other books by both authors. Thus, although I use *Difference and Repetition* as the main source – and the concept of transcendental empiricism belongs primarily to this book – I am employing Deleuze and Guattari's philosophy as a whole. While their individual and collaborative works could be differentiated, in this thesis, I treat them as expressing essentially the same philosophical point of view. Thus, there is no explicit discussion of the relationship between the individual works of Deleuze and Guattari and the collaborative works between the two.

Regarding the ideas and theories of the composers, I draw on Arnold Schönberg's treatise on composition, *Harmonielehre*, from 1911 (*Theory of Harmony*, 1978), the collection of essays published as *Style and Idea* (1950) and the posthumously published manuscripts *Der musikalische Gedanke*, which were translated, edited and published by Patricia Carpenter and Severine Neff in 1995 as *The Musical Idea and the Logic, Technique, and Art of Its Presentation* (2006). The chapter on Olivier Messiaen builds on his early treatise *Technique de mon langage musical* from 1944, published in English as *The Technique of My Musical Language* (1956), and the two books *Conversations with Olivier Messiaen* (Samuel, 1976) and *Contributions to the Spiritual World of Olivier Messiaen, with Original Texts by the Composer* (Rössler, 1986). In addition, I have consulted the English translation of volume 1 of the posthumously published *Traité de rythme, de couleur et d'ornithologie* (Messiaen, 1998). In Chapter 6, focusing on Giacinto Scelsi, I have used the German translation of his complete writings and interviews published as *Die Magie des Klangs. Gesammelte Schriften* (2013a&b).¹

Concerning the commentary on these composers, there is an enormous amount of secondary literature on Schönberg and Messiaen and less on Scelsi. I build on several works and ideas from this material and will refer to the relevant books and articles at the beginning of each of the three chapters on the composers.

There is also vast secondary literature on Deleuze and Guattari's philosophy. A number of books introduce and discuss their main concepts, and I will refer to the important sources for my reading when I situate my position in relation to other readings at the beginning of Chapter 2, as well as throughout the body of the text. Furthermore, Deleuze and Guattari's philosophy has received substantial treatment in various studies of music. Ronald Bogue's

1 Throughout the text, where German-language sources are cited, the translations are my own.

Deleuze on Music, Painting and the Arts (2003) and *Music after Deleuze* (2013) by Edward Campbell consider Deleuze's thinking in relation to music; Bogue focuses mostly on the context of Olivier Messiaen, while Campbell discusses central concepts in relation to a broad field of music, with special focus on modernism and the contemporary music of the twentieth and twenty-first centuries. The comprehensive study *Boulez, Music and Philosophy* (2010) by Edward Campbell engages (amongst others) Deleuze's thinking in relation to Boulez, both philosophically and in the context of the history of ideas and analysis of music. The anthologies *Deleuze and Music* (2004) and *Sounding the Virtual* (2010) engage Deleuze and Guattari's philosophy in different musical contexts and approaches, and in Chapter 3, I consider the criticism levelled against Deleuze and Guattari's philosophy of music in Michael Gallope's essay, 'The Sound of Repeating Life: Ethics and Metaphysics in Deleuze's Philosophy of Music' (2010).

The essence of my approach in this thesis is in the question of intensive forces encountered as a 'becoming' and how to think about such an encounter in the context of music. This framing of the problem intersects with but also differentiates my approach from several other authors. For example, in the article 'Music and the Difference in Becoming', Marianne Kielian-Gilbert asks, 'How might one actualize a praxis of difference in creating musical ideas?' She further specifies this question by asking, 'What are some of the mechanisms of difference and becoming in music and how is that becoming expressive (what does it do)?' (Kielian-Gilbert, 2010, pp. 203, 206). While this question is close to the motivation behind the present study, I proceed in a different direction. Kielian-Gilbert's article studies the notion of becoming in relation to formal analysis and theoretical reflections, and although the difference between covered and unmediated intensity is present in her philosophical exposition, it is not clear how her musical discussions function in relation to this distinction. In the present treatment, this difference is critical. As discussed above, this distinction has determined the approach through which I bring ideas and elements from music into proximity with epistemology. Even if musical modernity could be understood as preoccupied with a molecularization of musical material in a regime of difference, this distinction must be problematized. While the molecularization of sound as musical material could be observed in several ways, without a sufficient problematization of the experiential-experimental and epistemological dimensions of technical and aesthetic procedures, the novelty of Deleuze and Guattari's differential thought and aesthetics risks being lost. A molecular material can arguably be perceived on a molar plane and be as clichéd as traditional identitarian categories. This relativity regarding the subject asks that one studies the epistemological dimension of concepts surrounding the notion of molecularization and provides the opportunity to unearth potential aesthetic effects and functions. In any case, if music is to be thought of as part of transcendental empiricism, the concept of a molecularized musical material requires the corresponding epistemological

understanding of a molecularized perception. The problematization of what a direct encounter with intensity entails must be foregrounded.

1.3 Overview of Dissertation

Chapter 2 presents my reading of transcendental empiricism. This chapter goes into some detail regarding the conceptual economy behind this philosophical position and it aims to give a condensed but systematic account of it. The focal point of my reading is the idea of a disjointed exercise of the faculties, and I seek to expound the central concepts (virtual–intensity–actual, syntheses of time, BwO, and aesthetics and art) concerning this notion. I begin by providing a brief overview of the general tenets of Deleuze’s philosophical position. Then, I outline Deleuze’s theory of time and the sub-representative syntheses, with a focus on how these concepts relate to the transformation of perception and thinking involved in the creation of transcendental empiricism. Deleuze’s account of the ‘disjointed exercise’ of the faculties is then discussed and related to the notion of a direct experience of intensive difference and the virtual. The central idea of a BwO is presented, and based on the preceding outline, the role and function of art as transcendental empiricism is finally elucidated.

Chapter 3 picks up the central notion of a direct encounter with intensive difference and asks how this encounter can be understood in a musical context. I begin by developing the concept of intensity in music through three related discussions: Merleau-Ponty’s observation of the experience of time in a melody, Ernst Kurth’s notion of energetics and Daniel Stern’s concept of vitality forms. These discussions contextualize and broaden Deleuze’s concepts of intensity and temporal synthesis in relation to music. I close this first part of the chapter by arguing that these accounts show us that music is an experience of intensity in its covered state, on the very limit of the sub-representational.

In the second part of the chapter, I discuss and contextualize Deleuze and Guattari’s claim that the aesthetic problem of a direct and unmediated experience of intensive forces belongs to the ‘Modern Age’. I suggest that to understand what this experience of intensity implies, we should understand their notion of a molecularization of musical material as it corresponds to a molecularization of perception, according to Deleuze’s discussion of microperceptions. I thus conclude that the distinction between covered and unmediated intensity correlates with that between imaginative contraction and the molecularization of perception as epistemological categories. I argue that this gives us a more solid understanding of how music relates to the

sub-representational syntheses of time. This chapter ends with a discussion of concepts of music and aesthetic experience in light of the preceding considerations.

Chapters 4–6 explore to what extent the notion of a direct encounter with intensive forces can be seen operating in the poietics, ideas and theories of Schönberg, Messiaen and Scelsi. Each of the case studies aims to clarify one or more Deleuzian concepts relevant to understanding music as part of transcendental empiricism – concepts that I argue can be approximated to what takes place in the examined ideas. To further explore this topic, I have sought not to take an application of Deleuze and Guattari’s concepts as the starting point; rather, I *arrive* at the theoretical confrontations and conceptual conjunctions by developing the material on its own basis. As mentioned above, I mobilize various concepts, philosophical positions and epistemologies to construct three configurations or images of thought operating in the musical creativity of the three composers.

In Chapter 4, which focuses on Schönberg, I develop the Goethean conception and epistemology of the Idea, on the presupposition that Goethe’s thinking most fruitfully accommodates Schönberg’s conception of the musical Idea. Into this Goethe–Schönberg conjunction, I read Schönberg’s statement that dodecaphony is grounded in a unitary perception of a unitary musical space, exemplified by Swedenborg’s transcendental experience beyond space and time. The principle of the structural permutation of a row is said to gain its validity from this background. In my reconstruction of these ideas, I read Schönberg’s concept of the musical Idea in its virtual state, and I understand the concept of dodecaphony as grounded in this notion. As such, the formation of dodecaphonic (pre-compositional) musical material reflects the virtual Idea beyond space and chronological time. I then graft this onto Deleuze’s conception of the Idea and its tripartite virtual–intensive–actual structure. This opens the possibility to take the vitalist Goethean thinking of Schönberg, which is still centred on wholeness, unity and comprehensibility, in the direction of more differential thinking. Finally, I briefly discuss Boulez’s criticism of Schönberg.

Chapter 5 revolves around Messiaen’s concept of dazzlement. I first present this concept and then conduct an in-depth investigation in two parts. The first seeks to develop a philosophical concept of time corresponding to Messiaen’s ideas about rhythm and the ending of time. Central here is the notion of messianic time as the time *of* resurrection: the idea of a non-chronological time which delimits the threshold between history and eternity. To develop this idea, I turn to Giorgio Agamben’s reading of messianic time in St. Paul (2005). The temporality thus developed accommodates Messiaen’s claims about music’s capacity to bring about a breakthrough towards the beyond on the one hand, and, on the other, it responds to critical claims that Deleuze’s thinking is inimical to Messiaen’s concern with the afterlife and eternity.

The idea of musical rhythm as a means or ‘machine’ to experience an intensive and virtual time emerges from this discussion. The second main part of the chapter deals with Messiaen’s statements about the sensation of sound and colour and how he uses this sensation to create coloured music. I connect these claims to Deleuze’s ideas about microperception and show how Messiaen’s thinking about sound-complexes and synaesthesia concerns this intensive dimension of experience. I also connect this notion to what Guattari calls the problematic dimension of affect. Messiaen’s ideas and claims about dazzlement as a transgressive experience of virtual forces are presented against this background. The chapter ends with a reflection on Messiaen’s musical thinking and transcendental empiricism.

Giacinto Scelsi’s thinking and ideas are the objects of **Chapter 6**. In this chapter, I primarily develop two concepts: the tone-monad and pure perception. These concepts are intertwined, and I argue that the object of Scelsi’s musical thinking is the Goethean-anthroposophical tone-monad. I base this argument on his theosophical and anthroposophical influence and background, as well as explicit references. My aim is to develop this idea as it relates to the actuality of sound (physical vibrations and the theory of over- and undertones) in Goethe, and then to expand its vitalist dimension to the anthroposophical idea of an implicated field of living (etheric) forces. I then suggest that this idea is similar to Deleuze’s notion of intensity as an infinite field of difference, and I also bring it to bear on his remarks on the monad in the work of Leibniz and Whitehead. With this ontological concept of the tone, I develop a corresponding epistemological concept of pure perception. Taking a detour via Scelsi’s ideas about aesthetics and intensity, I discuss his interest in yoga and meditation. Against this background, I outline a methodology corresponding to the tone-monad. This cognitive yoga is based on the works of Rudolf Steiner, and I argue that this epistemological account can be considered the equivalent of Scelsi’s aesthetic project. The pure perception of a tone is based on a transformed perception, in which the field of non-organic etheric forces envelops subjectivity as a plane of immanence. I end this chapter by comparing Steiner’s notion of pure perception to Deleuze’s doctrine of a disjointed exercise of the faculties and sensibility as pure intensity.

Chapter 7 reflects on the previous chapters and ties the findings together. I revisit and discuss the central claims of Chapters 4 to 6, concluding this chapter arguing that the idea of music as transcendental empiricism has been made visible as an operation both in general and through the three examples. An internal relation of music and philosophy has thus been presented, outlining the idea of transcendental empiricism as a speculative practice in a musical context.

2 Transcendental Empiricism: The Encounter with Intensive Difference and the Disjoining of the Faculties

In this chapter, I present my reading of the philosophical operation that Gilles Deleuze names transcendental empiricism. I do so in the context of Deleuze and Guattari's philosophy as a whole, although this chapter relies primarily on Deleuze's book *Difference and Repetition*.

In this thesis, I focus on transcendental empiricism as an *operation*. In doing so, I stress what I consider to be a central aspect of this philosophical position, namely that transcendental empiricism requires a thinker to attain the intensive reality of conditioning forces that do not appear as given in empirical experiences. At this point, both the concept of the 'transcendental' and of 'empiricism' undergo radical metamorphosis. As Brian Massumi writes, 'Deleuze's philosophy is the point at which transcendental philosophy flips over into a radical immanentism, and empiricism into ethical experimentation' (Massumi, 1996, p. 226). The operative and experimental element arguably required for this flip to take place is underscored by a number of commentators, but it is also underdetermined or absent in many accounts.

For example, in *Deleuze and the Genesis of Representation*, John Hughes reads Deleuze as giving an account of the genesis of experience. While the problem of genesis also informs and directs my reading of Deleuze and Guattari, I do not follow Hughes' understanding of what this implies. In Hughes' phenomenological situating of Deleuze's thought, transcendental empiricism is a philosophical position that depicts the genesis of representational knowledge, and such knowledge is the ultimate goal of the project of transcendental empiricism:

In thought the Idea is born. And once the Idea is born, it is actualized in propositions. If these propositions are affirmed, they constitute knowledge. Knowledge, 'the supposedly simple result' is the final telos of the entire genesis – of the entire book. (Hughes, 2009, p. 86).

While Deleuze does theorize the formation of the subject via sub-representative temporal syntheses, he also develops an account of what it means to repeat these syntheses as intensive processes in thought. This seems to be of central importance to the whole enterprise of transcendental empiricism and is quite different from knowledge as the final telos of the book. When Deleuze writes that the creation of thinking in thought is 'the principle of transcendental empiricism', I consider this to mean that the goal is not only a theoretical account of the genesis of representation but also the creation of an intensive non-representational

thought (Deleuze, 1994, p. 147). In this reading, the fundamental philosophical problem is not to present a theoretical account. Rather, the theoretical account grounds the idea of genesis as an original creation of thinking. Deleuze's philosophy lays out a conceptual plane on which thinking can grasp its conditioning forces and learn to encounter them as realities. Only against the background of such an understanding does it make sense that, as Daniela Voss summarizes, 'Deleuze contends we have the means to penetrate the realm of the sub-representative, to explore virtual Ideas, to live and to experience the pure past and even to create fragments of the pure past in art' (Voss, 2013, p. 8).²

In my reading of Deleuze's transcendental empiricism, I seek to foreground this experimental dimension and to identify how the relevant concepts display operations that are not purely theoretical but point to an event where philosophical thinking must encounter its Outside. In this regard, aesthetics plays a central role. As I will return to later in this chapter, Deleuze often discusses art as that which, by experimenting with the conditions of sensibility, is capable of revealing the conditions of real experience. As such, it can open thought to the reality of intensive forces. The conceptual thinking of philosophy and the aesthetic experimentation with sensation are therefore two elements in the laboratory of becoming.

Whether it is in fact possible to realize the visions outlined by Deleuze and Guattari is naturally an underlying question. However, I do not address this question directly. My goal is rather to present the conceptual apparatus of transcendental empiricism and the role of art in it to understand the *conditions* for such a practical operation. Moreover, if the nature of transcendental empiricism goes beyond a theoretical account, the answer to the above question will as well.

Many authors point out this experimental-experiential aspect of Deleuze's thought. In *Conditions of Thought: Deleuze and Transcendental Ideas*, Voss comments that there is an 'existentialist dimension to the third synthesis of time' because 'Deleuze insists on its disruptive impact on the identity of the subject and its liberating power with regard to all prior possibilities of life' (Voss, 2013, pp. 250–251). In addition, in *The Theatre of Production*, Alberto Toscano writes that 'Deleuze's doctrine is profoundly concerned not just with the determination of the conditions of realization of individuality, but with the experience of the preindividual itself (transcendental empiricism)', which Toscano calls a 'speculative praxis' (Toscano, 2006, p. 199). Moreover, Sjoerd van Tuinen writes about Deleuze's philosophy as preoccupied with 'a speculative life which converts organic life into a spiritual and critical force' (van Tuinen, 2016, p. 103), and Christian Kerslake suggests that 'the central problem

2 Voss includes these references to Deleuze's works: *Desert Islands*, p. 115; *Difference and Repetition*, p. 194; *Bergsonism*, p. 122, note 16; *Difference and Repetition*, pp. 85 and 122.

with the notion of immanence is that it cannot be a purely theoretical problem' (Kerslake, 2009, p. 41). My reading of transcendental empiricism is motivated by the question of how to confront this 'central problem' of the philosophical discourse in a way that can be productive for developing a 'speculative praxis'.

Deleuze's account of the disjoining of the faculties is critical to my understanding of how an intensive encounter between philosophy and art can occur. Deleuze claims that in their disjointed exercise, the faculties are returned to the elements from which they originate. The implications of this statement are many. If the faculties that constitute experience are dissolved in a field of intensity and virtuality, the notion of experience must be radically expanded and perhaps even severed from normal, empirical experience. At this point, the notion of experience can no longer be related to a pre-existing consciousness confronting pre-existing objects. On this plane of immanence, the distinction between subject and object has a transitory function and no fundamental or constitutive role. In my reading, transcendental empiricism seeks to understand the intrinsic genesis of subject and object as a process of becoming from this point of view of immanence.

This understanding also brings philosophy and art in proximity to esoteric and occult practices of anomalous individuation. Kerslake has provided significant contributions to understanding Deleuze's thought as an adventure in intensity. In *Deleuze and the Unconscious* (2007), Kerslake shows the many inspirations of occult thought that can help situate Deleuze's philosophy in relation to currents that are otherwise only marginally present, bringing philosophical thinking in proximity to esoteric experiments and spiritual ordeals. Such a connection is further studied by Joshua Ramey in his book *The Hermetic Deleuze: Philosophy and Spiritual Ordeal* (2012). Building on Kerslake's research, Ramey inscribes Deleuze's thought into the hermetic tradition of Western esotericism and shows how his philosophy can be understood as a spiritual practice. I have great sympathy for these readings, which highlight the many traces of such influence on Deleuze and Guattari and can be observed through authors such as Malfatti, Wronski, Castaneda, D. H. Lawrence, Artaud and many more. While my study remains mostly within a philosophical register, the three composers' worlds of ideas will frequently draw us into esoteric territories, such as those of Goethe, Jan van Ruusbroec, Rudolf Steiner and Emanuel Swedenborg.

Furthermore, my reading of Deleuze and Guattari has been strongly influenced by Éric Alliez's *The Signature of the World, Or, What is Deleuze and Guattari's Philosophy?* (2004). Alliez contrasts the Deleuzian notion of sensation with a phenomenological position and brings forth the vitalist becoming of Deleuze and Guattari's thought. As Alberto Toscano writes in the preface to the book,

against the circulating opinion that notions of subjectivity are simply alien to Deleuze's (and Guattari's) philosophy ... [Alliez] does allow us to move toward a novel, Deleuzian conception of subjectivity no longer wedded to the Cartesian subject of knowledge or the phenomenological subject of perception. (Alliez, 2004, p. xxi)

In the following reading and exposition of transcendental empiricism, the guiding idea is a transformational event that can open to the intensive realities of a new kind of subjectivity. I attempt to reconstruct Deleuze and Guattari's conceptual trajectory to determine what may be a processual and intensive reality behind these ideas. I have deemed it necessary to provide a somewhat detailed presentation of the concepts involved in setting up transcendental empiricism in order to carry over the problem of a direct encounter with intensive difference and its implications into the discussion of music in the subsequent chapters.

This chapter is structured as follows. After a condensed overview of transcendental empiricism and some of its concepts, I follow Deleuze more systematically into the domain of the sub-representative syntheses of time. After I have portrayed these three syntheses, I explore the notion of intensity in relation to the disjoining of cognitive faculties. Then, I discuss how the disjointed faculties relate to the concept of a BwO, and based on this discussion, I present the relationship between art and aesthetics and transcendental empiricism.

2.1 Transcendental Empiricism: An Outline

Transcendental empiricism is an empiricism concerned with a process or plane which is irreducible to the distinction between the subjective and objective. As opposed to a transcendental account of this plane as *a priori* structures or conditions of possibility lying outside experience, transcendental empiricism finds it *in* experience. But as opposed to mere empiricism, it does not find it directly accessible as the 'given' of experience, but as a transcendental realm in the sensible, conditioning empirical consciousness. It is in this sense that transcendental empiricism is a philosophical operation that seeks to empirically chart the conditions of *real* rather than possible experience. It finds these conditions in what Deleuze calls intensive difference as the being *of* the sensible:

Empiricism truly becomes transcendental ... only when we apprehend directly in the sensible that which can only be sensed, the very being *of* the sensible: difference, potential difference and difference in intensity as the reason behind qualitative diversity. (Deleuze, 1994, p. 56)

As I will return to below, this empiricism requires a disjointed exercise of the faculties. This means that what concerns a faculty is no longer determined by the elements of other faculties, such that in the case of sensibility, sensation becomes independent of conceptual determination, memory, and so on. To sense the very being *of* the sensible, sensibility must sense directly in the sensible that which can *only* be sensed. This, Deleuze writes, is imperceptible for empirical sensation because it is covered by the cognitive machinery of a 'common sense' where all the faculties co-operate to bring about recognitions of objects in the world. It is the disjoining of the faculties that opens access to the transcendental field, and thus, by the same token, restores this field as a plane of immanence.

This core 'epistemological' idea can be related to Deleuze's ontology in the following way. As a general scheme we can distinguish between a virtual plane of immanence, an intensive field of individuation and the domain of the actual. If the actual is the empirically given, the intensive and virtual concern the transcendental conditions of real experience and circumscribes fields of ontogenetic forces. In Deleuze and Guattari's *A Thousand Plateaus* we find this ontology as a musical metaphysics in which the 'becoming' of the world is thought as the cosmic 'ritornello' of an intensive universe composed of forces: a great circulation between a virtual plane of immanence and their explication as the world of qualities and extensive relations belonging to subjects and objects in time and space.

Before continuing to outline how Deleuze depicts the operation of accessing the intensive and virtual forces, it can be instructive to note the dispute and diverging positions in the commentary with regard to these concepts. As James Williams writes, the distinction between virtual, intensive and actual opens the door to accusations of dualism and invites a number of problems as to how the two fields of the virtual and the actual are related.

The fields can be seen as two sides of reality, as two separate fields that together constitute reality, or as one prior field from which the other declines or in regard to which the other turns out to be an illusion. (Williams, 2005, pp. 95–96)

In the commentary on Deleuze, this question of exactly how to think about the relationship between the actual, the intensive and the virtual is a matter of complex dispute. In the 2015 article *Deleuze's Secret Dualism? Competing Accounts of the Relationship Between the Virtual and the Actual*, Dale Clisby summarizes the central positions in the English literature on this point (Clisby, 2015). Clisby outlines two diverging interpretations of the relationship between the actual and the virtual as found in *Difference and Repetition* and terms these positions 'virtual priority' and 'reciprocity'. Clisby mentions the critics Alain Badiou and Peter Hallward as proponents of the virtual priority view, which sees Deleuze as prioritizing the

virtual, meaning that the source of all creativity and becoming must be sought in the virtual. This has the effect of severing the actual from its creative source and introducing a dualism between the terms. By contrast, proponents of the reciprocity view consider the virtual and the actual as engaged in a 'reciprocal process of creation' (Clisby, 2015, p. 133).

A further problem connected to this debate is the nature and role of the intensive in relation to these terms. How exactly should the category of the intensive be placed between the virtual and the actual? Clisby singles out some central proponents of diverging views: James Williams (2003) understands intensity as a property of the virtual; Jon Roffe (2012) sees it as belonging to the actual; Manuel DeLanda (2005) conceives of intensity as a category of its own, as 'a separate ontological register altogether' (Clisby, 2015, p. 134).

While an account of the ontology of these categories and their genetic relationship is not at the centre of this thesis, and any satisfactory discussion would be far beyond its scope, it is important to note that my reading follows the reciprocity view. Rather than considering the process of actualization unidirectional, I understand it as entailing a continuous feedback loop, such that each actual entity must be seen as a *process* that can also become an agent. Deleuze's ontology does not entail a Classical hierarchy between spiritual emanation or creation and passive material reception, and I see the proponents of virtual priority as reading too strong an opposition into these concepts. Rather, there is a continuous actualization, de-actualization and re-actualization of the virtual where the actual is not a mere receptacle but part of an asymmetrical feedback loop of becoming. I am also of the opinion that a real solution to this metaphysical question requires more than a logical exposition of concepts. James Williams points out this issue when it comes to

the place of logic in setting up core aspects of a metaphysics. Does logic come first (allied to a form of common sense that decides upon its worth)? Or do we have sensations and experiences that determine a metaphysics in relation to a series of logics that are assigned different roles and positions (for example, non-contradiction when dealing with actual differences, but not when dealing with Ideal relations)? (Williams, 2005, p. 113)

While I will not be able to answer the metaphysical question of how exactly to think relationally the tripartite structure of the virtual-intensive-actual in Deleuze and Guattari's thought (to which belongs also the question of its changing configuration during their authorship), the role of intensity and its 'experience' as a condition for transcendental empiricism will follow from my interpretation of the sub-representational syntheses and how they determine thinking and sensation.

Because of the definition of transcendental empiricism as a direct apprehension of intensive difference in the sensible, art occupies a central role. Insofar as art involves an experimentation with the conditions of sensible experience, Deleuze writes that the ‘work of art leaves the domain of representation in order to become “experience”, transcendental empiricism or science of the sensible’ (Deleuze, 1994, p. 56). The notion of sensation will here occupy a central role since it is in the sensation of intensity that an experience of the transcendental conditions can take place. This means that also with regard to thinking the notion of ‘sensation’ plays an important role, because when thinking enters the field of intensity, it does so by means of a sensation of intensity. Consequently, thinking itself becomes sensation as intensive and differential movement. Transcendental empiricism thinks the world as a differential play of intensive forces in a circuit between the virtual and the actual, and it is *empiricism* to the extent that thinking itself can become part of this differential play of forces.

It is therefore important not to confuse mere empirical sensation with the notion of sensation in transcendental empiricism where it is thought *qua* intensity in a becoming that takes place beyond the distinction between subjective experience and the world of objects.

[T]ranscendental empiricism is the term I will use to distinguish it from everything that makes up the world of subject and object. There is something raw and powerful in such a transcendental empiricism. It is certainly not the element of sensation (simple empiricism), because sensation merely cuts a slice in the continuous stream of absolute consciousness. Rather, it is the passage from one sensation to another however close two sensations may be ... as becoming. (Deleuze, 2007, p. 388)

Empirical sensation, Deleuze says, ‘merely cuts a slice in the continuous stream of absolute consciousness’ coextensive with a transcendental field imperceptible for subjective consciousness (Deleuze, 2007, p. 388). Subjective consciousness is always already filled with the elements of representation, and thus the becoming of a sensation is always already covered by what self-consciousness brings to bear on the impression. If, phenomenologically speaking, conscious experience is constituted from acts of distinguishing and relating within a field of sensations, these are only so many cuts and slices that form a matrix separating us from the real forces, active underneath and within this formation. Consciousness is ‘built’ by cuts and slices of the world-continuum, reflected and integrated by the organism coordinating all the streams of sensation and life. But the life of the world is thereby suppressed, forgotten in favour of a mode of consciousness and thinking operating on the principle of identity. The world appears as always already represented, re-presenting itself in and as an individual’s consciousness. From this emerges what Deleuze calls the dogmatic image of thought which

takes itself for granted and avoids encountering its own sub-representative formative forces. The principal model for this dogmatic image of thought, is 'recognition':

There is indeed a model, in effect: that of recognition. Recognition may be defined as the harmonious exercise of all the faculties upon a supposed same object: the same object may be seen, touched, remembered, imagined or conceived. (Deleuze, 1994, p. 133)

As is obvious, this is simply a description of our every-day consciousness. When we orient ourselves in the world, we do so by recognition of objects. Correlatively, we represent ourselves as subject having these recognitions. But Deleuze claims recognition and its form of experience in time and space is a kind of surface-effect of temporal syntheses working underneath, sub-representationally. These syntheses join together the elements composing our various faculties, which we then employ in recognition. When the various modalities of sensation (colour and light, touch, smell, sound, taste, etc) are superimposed upon each other, together with the impositions of memories of previous perceptions, of imaginative supplanting of unperceived part of an object and, of course, the conceptual determination of what we are experiencing, then we have the recognition of an object. In this process, all the faculties 'relate their given and relate themselves to a form of identity in the object' (Deleuze, 1994, p. 133). To reach beneath this dogmatic 'common sense' requires to release the elements belonging to the various faculties from the form of represented identity, and to experience them in themselves, as intensive forces. As Éric Alliez writes with regard to the notion of sensation:

Ceasing to be representative, sensation becomes real 'in itself' ... This means that sensation appears for what it is: vibration, wave of forces or chaotic fold, rhythm, scansion of a vital power that dissolves forms, plunges into chaos, opens onto the cosmos. (Alliez, 2004, p. 70)³

Using an expression from *A Thousand Plateaus* sensation becomes a *line of flight*: thinking and sensation converge in and as intensity to the same extent that they are released from the grips of the organic body and its psychological apparatus (Deleuze & Guattari, 2007, p. 134). As we will see, in this way the intensive dimension of sensation opens a gateway to a transcendental empiricism that can explore the constitution of experience as the actualization of virtual Ideas in a system of intensive relations. Deleuze shows how the faculties that are formed as an outcome of the sub-representational syntheses can be disjoined from each other

³ See page 71ff in this book for further discussion of the relation between phenomenology and Deleuze and Guattari's philosophy.

and grasp 'that which concerns them exclusively and brings them into the world' (Deleuze, 1994, pp. 140–141).

This process implies several interwoven steps which can be summarized in concentrated form thus: When the true ontological ground of perception is restored, sensation means participating in matter as intensity. When memory is released from the structure of recognition, its relation to the past is no longer dependent on 'past presents'. Memory remembers not a past present but the virtual, what is called after Henri Bergson the pure past. When released from its adherence to identity and conceptual determination, thinking becomes pure thought as virtual movement.⁴ Only by freeing the faculties from their unification in a common sense modelled on recognition will difference and the real nature of sensation be thought. This process takes us into 'the being of sensation [which] is not the flesh but the compound of non-human forces of the cosmos, ... man's nonhuman becomings' (Deleuze & Guattari, 1996, p. 183). This being of sensation, these intensive and differential forces of becoming are then found as sub-representational syntheses.

2.2 The Sub-Representational Syntheses of Time

2.2.1 Sensation and the Synthesis of the Present

To perceive with our physical body is to live in contact with the sensible. If perceptions are meaningful recognitions of objects and events in the world, then these are composed of manifold sensations. The sofa in front of me is grey, but this greyness is full of a variety of lighter white-ish and darker black-ish spots, it has a certain texture that can be felt simply by looking at it, and its shape, if followed and explored even if only in sight, gives manifold sensations of lines and movements. In this sense, perception is composed of a myriad of sensations that only come to awareness when one plunges into the many subtle qualities in order to sense them. Sensation delivers us to the living present of our material environment, as immersion in the material world of light and sound, touch and warmth, taste and smell, and so on.

4 See also the discussion in chapter two 'The Plane of Immanence' in *What is Philosophy?: 'To orientate oneself in thought' implies neither objective reference point nor moving object that experience itself as a subject and that, as such, strives for or needs the infinite. Movement takes in everything, and there is no place for a subject and an object that can only be concepts. It is the horizon itself that is in movement: the relative horizon recedes when the subject advances, but on the plane of immanence we are always and already on the absolute horizon.* (Deleuze & Guattari, 1996, pp. 37–38)

Temporally speaking sensations are only present, they are the *thisness* of here and now. A sensation remains only so as long as we are sensing – if it becomes a memory or a thought we are no longer in immediate touch with the sensation. Rather than being in the presence of something presenting itself, one is then representing it. As such, in the moment of a purely sensing contact with the world there can be no talk of distinguishing and relating the ‘what’ of sensations, of organizing the impressions relationally. But phenomenologically speaking, what would this pure presence be? Is it possible to experience a totally pure sensation that is not conditioned and coordinated by ideas, memories and other sense-impressions? On the level of what appears as given in empirical consciousness, the answer to this must be no. But to come to this question, to come to this limit in perception, is to come to the limit to the first sub-representational synthesis of time.

What we take to be a pure and immediate presentation in empirical consciousness, the sensation of presence, is in reality a representation because it is always already imbued with elements that organize and condition this present. Beneath this immediacy lies the first sub-representative synthesis of time, a synthesis of the molecular and intensive dimension of sensation. Deleuze describes this as passive syntheses or ‘contractions’ that give rise to the qualities of sensation. Sensation is thus a *process* which begets the qualities we experience in perception, but these are themselves expressions of the sub-representational synthesis of living matter.

The sensed quality is indistinguishable from the contraction of elementary excitations... [but these] perceptual syntheses refer back to organic syntheses which are like the sensibility of the senses’ ... contractile contemplation which constitutes the organism itself before it constitutes the sensations. (Deleuze, 1994, pp. 72–78)

Deleuze establishes a principal continuity between conscious experience and the forces of the world in which the organism is embedded and from which it has emerged. In principle, the horizon for this selective binding and connection of sensations in the first synthesis is an intensive, molecular matter in flux – a plane of immanent evanescent matter. It is a principle operating before the formation of any subject over against objects: From matter in flux, a folding which contracts instances into a living present gives rise to organic life-forms.

This is a materiality which cannot be modelled on inference from sense-perception. A formalizing mode of thinking that operates purely by quantitative mathematizations, where the form of an indifferent ‘object’ is theorized as energy, has already begun from a dogmatic and common-sense image of matter and employed a formal thought upon it in order then to discover its molecular dimension as a formal concept. For Deleuze, this proto-matter is inherently a self-affective process, a sentient being, something that comes to expression in the

concept of larval subjectivities in a system of a dissolved self. For each contraction of matter, for each folding of intensive matter a contemplative and larval self correspond Deleuze writes.

Selves are larval subjects; the world of passive syntheses constitutes ... the system of a dissolved self. There is a self wherever a furtive contemplation has been established, whenever a contracting machine capable of drawing a difference from repetition functions somewhere. (Deleuze, 1994, pp. 78–79)

With the concept of larval subjects Deleuze poses a kind of sentience inherent to any temporal contractions. This is not a fully formed subject, but the conditions for subjectivity to emerge: larvae are the early stage of an animal, and may metamorphose into very different forms: a larva becomes a caterpillar which in turn becomes a butterfly. Together these larval selves of difference and differential relations constitute the system of a dissolved self, a cosmic proto-self that is one with nature's creativity. This vision of the world as a living being is also gestured to in *What is Philosophy?* where Deleuze and Guattari write:

The plant contemplates by contracting the elements from which it originates – light, carbon, and the salts – and it fills itself with colors and odors that in each case qualify its variety, its composition: it is sensation in itself. It is as if flowers smell themselves by smelling what composes them, first attempts of vision or of sense of smell, before being perceived or even smelled by an agent with a nervous system and a brain. (Deleuze & Guattari, 1996, p. 212)

Thus, below the phenomenological access to sensations there are sub-representational syntheses that are minute material contractions. These syntheses of matter constitute the living now of each entity and, taken as an interwoven process, this gives us the fundament of time. The contraction and binding of intensive matter constitutes an enduring and changing present, and 'chronological time' is the measure of change within this eternally present now-time. From this perspective, time *is* material: it is the temporality of the material contractions of the universe, of the matter that compose actual entities, from particles to galactic clusters. In this perspective, from this point of view, only the present exists, and past and future are dimensions *of* the present, belonging to its contractile range.

The past and the future do not designate instants distinct from a supposed present instant, but rather the dimensions of the present itself in so far as it is a contraction of instants. (Deleuze, 1994, p. 71)

The contraction of an intensive matter into actualities is the principle of the first synthesis of time, a time in which only the present exists. Deleuze variously names this ‘the synthesis of the present’, ‘habit’, ‘contraction’ or ‘contemplation’. These different names point to the various aspects of its ontological significance: this synthesis creates the present as the foundation of time, it contracts elements as basis for morphogenesis and habituation in nature as well as in human perception and action, and it forms centres of larval subjectivity or sensibility. Deleuze and Guattari call this a material vitalism because matter is here understood as a living self-organizing, sentient process.⁵

The central question for transcendental empiricism is thus how such an intensive dimension of sensation can be attained. For empirical consciousness all sensation is tagged with representational elements and thus always mediated. One can partly isolate sensations through perception, such as when we enter into the quality of a colour or sound and forget them as attributes. Nonetheless, these qualities are still part of representational consciousness, even if at its very limit. If sensation is a limit between representation and sub-representative synthesis, a pure qualitative experience is the ‘upper’ side of sensation – the side turned towards perceptual representation. Its other, dark side is the properly intensive dimension. The task then would be to go through the quality of sensation and into its intensive dimension. As we will see below, this is a matter of making sensation act *on its own*, releasing it from recognition, its connection to memory and conceptual determination, and all its relations to externality. Then, through this action, one must find a way to experience sensation as embedded in a field of contractile and expansive forces:

Sensation, then, is on a plane that is different from mechanisms, dynamisms, and finalities: it is on a plane of composition where sensation is formed by contracting that which composes it, and by composing itself with other sensations that contract in turn. Sensation is pure contemplation, for it is through contemplation that one contracts, contemplating oneself to the extent that one contemplates the elements from which one originates. (Deleuze & Guattari, 1996, p. 212)

In *A Thousand Plateaus* the blacksmith is the herald of a consciousness of this vital matter because, despite appearances, he does not impose form onto matter but knows how to follow the morphogenetic potentials inherent in it, thinking according to the technological potential of matter itself. The blacksmith is the one who knows how to engage matter transformatively from within its own vital potentiality, employing his hammer upon the heated metal from within a consciousness of *its* matter-flow:

5 John Protevi (2011) writes that this makes Deleuze a ‘process pansychist’.

what metal and metallurgy bring to light is a life proper to matter, a vital state of matter as such, a material vitalism that doubtless exists everywhere but is ordinarily hidden or covered, rendered unrecognizable, dissociated by the hylomorphic model. Metallurgy is the consciousness or thought of the matter-flow, and metal the correlate of this consciousness. (Deleuze & Guattari, 2007, p. 409)

Deleuze and Guattari suggest the vital state of matter existing everywhere is covered by the hylomorphic model that thinks the world according to forms imposed upon matter. We simply perceive objects and events, forgetting that this in fact depends on a massive imposition of concepts and ideas, previous memories and habits such that our sensing relation to the world is covered by representations and we no longer have any consciousness of this ‘material vitalism that doubtless exists everywhere’.

Having reached a vision of matter as a living, evolving process, a material vitalism where contractile contemplations folded within each other constitute the flow of *Chronos* as an unending present, Deleuze refers us to a paradox which lies in the heart of this synthesis of time. This is what will take us beyond the actual into the reality of the virtual, and in the trajectory of the transcendental empiricism this means to free memory from common sense and restore a real non-representational relation to the past as something real *in itself*.

2.2.2 Memory and the Synthesis of the Past

Although it is originary, the first synthesis of time is no less intratemporal. It constitutes time as a present, but a present which passes. Time does not escape the present, but the present does not stop moving by leaps and bounds which encroach upon one another. This is the paradox of the present: to constitute time while passing in the time constituted. We cannot avoid the necessary conclusion – *that there must be another time in which the first synthesis of time can occur*. This refers us to a second synthesis. (Deleuze, 1994, p. 79)

This idea is not easy to grasp, and perhaps its function is also to plunge thought into paradox. One approach is to follow the paradox of the present as passing, and ask; ‘how’ or ‘when’ does the present become past? How can there be a limit that separates the present and past from each other? This is as much a philosophical meditation as a logical problem: How can the difference between the present and the past be thought, and what is the nature of this difference?

If the essence of the present is to pass, it must have an essential relation to the past, otherwise the notion of passing makes no sense. But when we try to think this past, we immediately

find ourselves in a labyrinth of riddles. The past is only given to us through the faculty of memory, but voluntary memory is based on representations of past presents. What is here 'thought' and remembered as past in no way gives us the reality of the past – that difference we are looking for as constitutive for the present as passing.

It is obvious that something essential escapes voluntary memory: the past's being *as past*. Voluntary memory proceeds as if the past were constituted as such after it has been present. It would therefore have to wait for a new present so that the preceding one could pass by, or become past. But in this way the essence of time escapes us. (Deleuze, 2008, p. 37)

Rather than giving us access to the past, the interplay between present observations and voluntary memory covers the real relation between past and present. As passing, the present must have an essential relation to the past, but this past cannot become past after the fact, after the present has passed. It is precisely at the very moment *of* passing that the difference between present and its past must be found. It is the nature of the present to pass, the present *is* change and becoming, and thus there must be a relation to the past *within* the heart of the present. We are, as Deleuze formulates it, led to the paradox: how can we understand that the present constitutes time while passing in the time constituted? Deleuze repeats this paradox several places in his work:

What is actual is always a present. But then, precisely, the present changes or passes. We can always say that it becomes past when it no longer is, when a new present replaces it. But this is meaningless. It is clearly necessary for it to pass for the new present to arrive, and it is clearly necessary for it to pass at the same time as it is present, at the moment that it is the present. (Deleuze, 1997, p. 78)

From contemplating this paradox, a sense can emerge of the idea that the limit between present and past as such cannot be found on the line of chronology. When we believe we grasp the past, we simply project an image of a 'past present', thus doubling the present, imposing a 'present' representation of a past present. As Jean-Clet Martin writes, 'this memory never directly grasps the past' (Martin, 2010, p. 75). All representation of the past, all our ordinary memories, belong to the present. They are like internal perceptions, recognitions of oneself. Even if these are memories that depend on past experience, they cover the reality of the past and turn it into representations. To get to the reality of the past as condition for the passing of the present we must go beyond the actual. But to go beyond the actual and think the past as such, 'past' must be dissociated from chronological time, and related to the present and its passing as an *a priori* past. The past is not preserved by the actual, by the present; it *preserves*

itself in itself. This is Deleuze's appropriation of the Bergsonian idea of the pure past, employing it in the second sub-representational synthesis of time.⁶

Out of this synthesis of memory at work in the heart of the first synthesis of matter, time is born as a twin.⁷ The (actual) present and the (virtual) past are contemporary with each other, and from this emerge further paradoxes that characterize the nature of time. These paradoxes can be summed up in the famous image of the cone that Bergson used to depict the pure past, where the apex represents the present, and the base the past.

The present exists only as an infinitely contracted past which is constituted at the extreme point of the already-there. The present would not pass without this condition. The present would not pass if it were not the most contracted degree of the past. (Deleuze, 1997, p. 98)

The present understood as the most contracted degree of the past is coterminous with the present as actualizations of the virtual. This virtual time is not only contemporaneous with, but also pre-exists the present, and it is also contemporaneous with itself as a whole. This means that the whole of the past exists in different degrees of tension and relaxation, as more or less related to a present actualization. As Deleuze says with Bergson, the past *is*, whereas the present is outside itself, it becomes:

We have confused Being with being-present. Nevertheless, the present *is not*; rather, it is pure becoming, always outside itself. It *is* not, but it acts. Its proper element is not being but the active or the useful. The past, on the other hand, has ceased to act or be useful. But it has not ceased to be. Useless and inactive, impassive, it *is*, in the full sense of the word: It is identical with being in itself. (Deleuze, 1991, p. 55)

⁶ In the commentary on Deleuze the status of the virtual is differently evaluated. For example, Joe Hughes claims that the virtuality of the pure past must be understood as produced by the first synthesis of time, thus ontologically dependent on it (Hughes, 2008, pp. 138–140). In my reading, Hughes' interpretation seems to be too linear and too tied to the phenomenological perspective of genesis. The consequence of Hughes' reading is that virtual Ideas are the outcome of a thinking faculty. However, as Daniela Voss shows, Deleuze clearly considers the virtual to be fully real in itself such that 'Ideas subsist in a virtual realm which is not immanent to a faculty of a thinking subject. Ideas rather constitute a plane of immanence themselves and their actualisation is elicited by internal processes of differentiation' (Voss, 2013, p. 208). On this point I follow Voss.

⁷ Jean-Clet Martin discusses Proust's depiction of amnesia as an experience of this contemporaneity which Martin calls a 'temporal stereoscopy' (Martin, 2010, p. 75). He also points to a passage from *Cinema 2* that illuminates how this is the essence of Deleuze's concept of the crystal-image: 'What constitutes the crystal-image is the most fundamental operation of time: since the past is constituted not after the present that it was but at the same time, the time has to split itself in two at each moment as present and past. ... Time consists of this split, and it is this, it is time, that we see in the crystal' (Deleuze, 1997, p. 81).

Memory is the faculty of the past, but ordinary memory only represents a past present. Ontological memory, or memory of the pure past, is the condition for ordinary memory, but its work remains sub-representational. Without the faculty of memory, we would not have a sense of the passing of time, but this difference needs to be at work even before there is anything to remember, in the very constitution of the present as passing. What is 'remembered' here is, of course, nothing but the liminal consciousness of time as passing. In this sense we can understand how this sub-representative synthesis of the pure past also conditions the first sub-representative synthesis of the present. As the principle which makes possible the passing of time, this is a virtual reality that actualizes itself as present while itself disappearing underneath or surrounding it as the virtuality of any present. This pure past 'is' a 'past' of the present that is never present but nevertheless makes the present possible. Forgotten from the outset, this Memory – *Mnemosyne* – is immemorial for empirical consciousness.

With the virtual as ontological Memory we also find the reason for the larval subjectivity of intensive matter posited above. The ability to conserve, to contract and fold matter, is grounded in an ontological memory. There 'is a self wherever a furtive contemplation has been established, whenever a contracting machine capable of drawing a difference from repetition functions somewhere' (Deleuze, 1994, pp. 78–79). When something folds and becomes, the cosmos repeats, and in repeating remembers itself so to speak. This larval subjectivity appears as the condition of possibility for the development of human subjectivity.

With the move from the first to the second sub-representational synthesis of time we move from the immanent flux of pure sensations and their foldings as actual objects, into the virtual nature of time. Or, put in the more pictorial language that Deleuze also uses in *Difference and Repetition*: The synthesis of the present, as contraction within an immanent field of sensations, is the *foundation* of time. But this foundation upon which chronological time can unfold, must still be referred to a deeper ground, and this ground is coming from the sky:

[W]e must distinguish the foundation from the ground. The foundation concerns the soil: it shows how something is established upon this soil, how it occupies and possesses it; whereas the ground comes rather from the sky, it goes from the summit to the foundations. (Deleuze, 1994, p. 79)

The virtual ground of time concerns the sky: the sun and weather, rain and heat; only this gives to the soil what it needs for something to grow. Only this cosmic circumference makes it a foundation. In effect, the material foundation of time is grounded in the virtual. The constitution of chronological time out of the living now is thus made possible by a vertical axis that goes from the sky to the foundation.

The time of the second sub-representative synthesis is a virtual, non-chronological and unbounded time, by Deleuze often named *Aion* after the Stoics. Whereas the first synthesis of time is *chronos*, the time of the present where past and future are dimensions of the present relative to its contractile range, *Aion* has no material present, only a vanishing limit (Deleuze, 2004b, p. 61). If one approaches the living now of the material present and attempts to think its absolute presence, one comes ever closer to an infinitely thin present. This is the present without thickness, a mere limit engulfed by an infinite subdivision into past and future. Here one finds the difference at the heart of the present, that which makes the present differ from itself *as present*, as passing. But, if one could release memory from common sense and its relation to the present, what would be remembered would be the virtuality clouding the present from which one took leave, the time of the event. In *What is Philosophy?* Deleuze and Guattari call this time the 'meanwhile' and they describe this as a time that is neither part of the eternal, nor of (chronological) time. This time of the event is a time coexisting with the passing moment but different from it and where the past and future of this moment appear 'in the strange indifference of an intellectual intuition':

It is no longer time that exists between two instants; it is the event that is a meanwhile [*un entre-temps*]: the meanwhile is not part of the eternal, but neither is it part of time - it belongs to becoming. The meanwhile, the event, is always a dead time; it is there where nothing takes place, an infinite awaiting that is already infinitely past, awaiting and reserve. This dead time does not come after what happens; it coexists with the instant or time of the accident, but as the immensity of the empty time in which we see it as still to come and as having already happened, in the strange indifference of an intellectual intuition. All the meanwhiles are superimposed on one another, whereas times succeed each other. In every event there are many heterogeneous, always simultaneous components, since each of them is a meanwhile, all within the meanwhile that makes them communicate through zones of indiscernibility, of undecidability: they are variations, modulations, *intermezzi*, singularities of a new infinite order. Each component of the event is *actualized or effectuated* in an instant, and the event in the time that passes between these instants; but nothing happens within *the virtuality* that has only meanwhiles as components and an event as composite becoming. Nothing happens there, but everything becomes, so that the event has the privilege of beginning again when time is past. Nothing happens, and yet everything changes, because becoming continues to pass through its components again and to restore the event that is actualized elsewhere, at a different moment. When time passes and takes the instant away, there is always a meanwhile to restore the event. (Deleuze & Guattari, 1996, p. 158)

In this quotation can be recognized the co-existence of the pure past: all the meanwhiles are superimposed on one another. The virtual has only meanwhiles as components, and these are actualized or effectuated in instants. The event is the virtual time that exists between these instants and in which nothing happens but everything is in becoming. In this we have a depiction of how the virtual is actualized as the instance of times passing, as chronological time, while remaining as the virtuality of the event clouding around the actual. As I will return to in the next chapter, this can be related to the idea of musical experience as a continuous passing of the present, building up a sensation also of the intensive and virtual forces surrounding it. As an immemorial memory of the past the virtuality of music accompanies the immediate perception of the passing present. The question of a direct encounter with intensity and the virtual, will have to be situated on this axis between the time of passing and the intensive time of actualization in which the meanwhile or the virtual can be perceived.

The two sub-representational syntheses of time are two different but complementary readings that belong together as actual and virtual. *Chronos* concerns actuality and causation among bodies where only the present exists; *Aion* concerns the virtual and incorporeal events where the present is only a limit. *Aion* is infinite time as the virtual ground of becoming, *chronos* its material and evolutionary formation.

The virtual pure past as the ontological ground and condition for the faculty of memory and for the passing of time (or more profoundly, our destiny) is the immemorial. It is that which makes empirical memory possible yet also what is forgotten in the very constitution of regular memory and time-consciousness. But as Deleuze clearly points out, the problem for a transcendental empiricism is how one could live and apprehend this virtual:

The question for us, however, is whether or not we can penetrate the passive synthesis of memory; whether we can in some sense live the being in itself of the past in the same way that we live the passive synthesis of habit. The entire past is conserved in itself, but how can we save it for ourselves, how can we penetrate that in-itself without reducing it to the former present that it was, or to the present present in relation to which it is past? *How can we save it for ourselves?* (Deleuze, 1994, p. 84)

If the problem of reaching a pure sensation concern that of living the contractions and expansions of the passive sub-representative synthesis of the present, to make sensation turn in on itself and sense the intensity behind the sensible, so the question of memory entails that of living the virtual being of the pure past, of penetrating the passive synthesis of memory and remembering the virtual. Thus, in each case one is led to the problem of how representation covers and hides the sub-representative. As we saw above, Deleuze refers this problem to the

model of recognition in which all the faculties relate themselves and their 'given' to the form of an object for a thinking subject. This imposes a form of identity on otherwise heterogeneous elements, and in order to go behind this representational form of experience one must learn to disjoin the faculties from this model. Each faculty or element must be made to act on its own such that the intensity of the present and the virtuality of the past can emerge as 'difference'. But this leads to the question of how thinking can discover its own innate difference so as to think these sub-representative syntheses. It leads to the third synthesis of time which is that of the future.

2.2.3 Thinking and the Synthesis of the Future

For Deleuze, the fact that we have the potential to think does not yet mean that we are thinking. Thinking is an act of creation, and it must first be engendered. In this regard, Deleuze refers also to Martin Heidegger's words in *Was heisst Denken?*

We recall Heidegger's profound texts showing that as long as thought continues to presuppose its own good nature and good will, in the form of a common sense, a *ratio*, a *Cogitatio natura universalis*, it will think nothing at all but remain a prisoner to opinion, frozen in an abstract possibility ... : 'Man can think in the sense that he possesses the possibility to do so. This possibility alone, however, is no guarantee to us that we are capable of thinking.' (Deleuze, 1994, p. 144)

In empirical consciousness, thinking is the summit of our cognitive activity. It is that which makes possible recognition, abstraction and logical systematization as our grasp of the world. But this is not the true nature of thinking. In this dogmatic image of thought we 'are never referred to the real forces that form thought, thought itself is never related to the real forces that it presupposes as thought' (Deleuze, 1983, pp. 103–104).

What are the conditions for discovering living forces in thinking? Deleuze directs us to the experience of the cogito – 'I think, therefore I am' – as the site of this discovery and shows how the necessary conditions can be found in a difference buried in this act of self-determination. As perception and memory cover their own differential processes (the intensive difference behind sensations and the virtual difference of the pure past), so does the representation of ourselves as thinking beings cover the difference at the heart of thought.

In *Deleuze: The Clamor of Being*, Alain Badiou points out what I consider an important element in Deleuze's thought, which lies at the heart of the third synthesis of the future. Badiou writes:

If ... thought exists as the fracturing of my actuality and the dissipation of my limit; but if, at the same time, this actuality and this limit are, in their being, of the same 'stuff' as that which fractures and transcends them...; and if therefore, powerful inorganic life is the ground both of what arrays me *in* my limit and of what incites me, insofar as I have conquered the power to do so, to transcend this limit: then it follows that the metaphor for the event of thought is dying, understood as an immanent moment of life. (Badiou, 2000, p. 12)

How exactly is the event of death an immanent movement of life? This is an important question in tracing the trajectory of transcendental empiricism. As we will see below, intensity is life, specifically, a non-organic life constitutive of matter. The syntheses discussed so far concern sensation, or the living presence of matter, and memory, or time in its virtual state. These are the sub-representative intensive realities of empirical perception and memory. The third synthesis of the future concerns thinking, and the 'event' is precisely a death immanent to life that opens thought to this intensive reality of the sub-representative. This is what Deleuze calls the creation of thinking in thought, an event in which the living death of (representational) thought becomes a dying life, revealing life in its intensive, non-organic state. Badiou calls this example a metaphor, and since for him death can only mean the death of the organic form of the human, this logic consequently entails a philosophy of death rather than a philosophy of life. However, as we will see, Deleuze claims that this is no metaphor; there is an *experience* of death in this third synthesis, and thus for him, this logic is internal to life itself as metamorphosis and intensive reality.

I will trace this event philosophically to analyse how Deleuze presents the conditions for experiencing death as an immanent moment of life itself. This is an important point in understanding the trajectory of transcendental empiricism as an operation and event, both because it marks the moment or cut at which immanence is restored and because it implicitly contributes to an explanation of why we are ordinarily not in immediate contact with the intensive life of the world. Furthermore, it is relevant to the present study in more than one sense. First, in Deleuze's aesthetics, the encounter with intensive difference is already a beginning-reversal and becoming-indistinguishable of the difference between life and death, and the event of the future is its continued metamorphosis and consequence. The artist, Deleuze and Guattari write, reaches 'the percept as "the sacred source," through having seen Life in the living or the Living in the lived', and this passage from the finite to the infinite and back marks the artist with 'the quiet mark of death' (Deleuze & Guattari, 1996, p. 172). Thus, the artist encounters the problem of the third synthesis of time in which death appears as an immanent moment within life, and in this vein, Deleuze and Guattari claim that music can give us 'a taste for death', not as the awakening of a death-instinct 'but [as] a dimension

proper to its sound assemblage, to its sound machine, the moment that must be confronted, the moment the transversal turns into a line of abolition' (Deleuze & Guattari, 2007, p. 299). In the chapter on Olivier Messiaen, we will meet this theme again in the context of resurrection and messianic time. For now, the question is: how does this reversal take place as a consequence of discovering difference within thought?

Cogito and the Discovery of Difference

The *cogito* – 'I think, therefore I am' – was Descartes proposed secure ground for knowledge and philosophy, ridding it of scholastic presuppositions, basing philosophy on immediate intuitions. But in the centre of this thought Deleuze finds a fissure, a fracture of the thinking I where difference can be discovered, released, and created. Deleuze sees this prefigured in Kant's critique of the Cartesian *cogito*: 'a precise moment within Kantianism, a furtive and explosive moment which is not even continued by Kant' (Deleuze, 1994, p. 58).

Descartes formulates the *cogito* as a direct and substantial relation between the determination 'I think' and the being of the thinker; 'therefore, I am'. In this case thinking and being is immediately superimposed and identical according to a logic which explicates what is implied in an idea. For Descartes, the 'I am' is extracted from the intuition of 'I think' as the being of the thinker. But Kant objects to this, claiming that one cannot equate thinking and being in this manner. The Cartesian Cogito implies an immediate substantial continuity between the determination (I think) and what this determination bears upon (the self that 'I am'), but for Kant the relation between a determination (concept/form) and what this determination bears upon (intuition/content) is only given *in time*.

The determination ('I think') obviously implies something undetermined ('I am'), but nothing so far tells us how it is that this undetermined is determinable by the '*I think*'. (Deleuze, 1994, pp. 85–86)

For Kant, there is an irreducible difference between the 'I think' as an act of thinking and the self that this determination bears upon. The being of the self is only given as an undetermined perception of myself; sense is made in relation to this perception. But determination – the act of thinking – requires time, however microscopic. For the determination 'I think' to apply to the undetermined existence, Kant introduces time as the form in which the undetermined is determinable. This time is the empty form of determinability as such, 'before' determination.

This, Deleuze writes, amounts to 'the discovery of Difference – no longer in the form of an empirical difference between two determinations, but in the form of a transcendental

Difference between Determination as such and what it determines' (Deleuze, 1994, p. 86). It is in this difference between the act of conceptual determination and what this act bears upon that the element of pure thought is to be found.

This difference is time not as the living present of material contractions nor as the virtual being of the pure past. This is rather a pure and empty form of time abstracted from the circularity of the sub-representational temporal syntheses of matter, subsisting underneath the formation of representations. It is a time wrested from the circularity of nature and laid bare, empty of any content. This pure and empty form of time is therefore the pure and empty form of thinking, that element which constitutes thought before anything is thought. It is not thinking's determination (conceptual form) nor that which is determined (content) but the pure form of determinability. As such, it is the possibility or potentiality of thinking which the form of representation cover. When this element is discovered, it splits the self-identical *cogito* and opens it to a sub-representational synthesis of thinking as such:

Here begins a long and inexhaustible story: *I* is an other, or the paradox of inner sense. The activity of thought applies to a receptive being, to a passive subject which represents that activity to itself rather than enacts it, which experiences its effect rather than initiates it, and which lives it like an Other within itself. (Deleuze, 1994, p. 86)

In this experience the act of thinking is no longer dependent on the subject but works upon the thinker as an Other. This, Deleuze says, amounts to the discovery of a transcendental difference. Empirical difference is given when thinking determines and imposes concepts to something given, giving form to matter. Concepts of forms are identified in the matter at hand, elements of the past are remembered to tell us about the present and so on. This produces differences in our conceptual understanding and perception of the world. But these differences are all dependent on identity. Only because we represent something as this or that can difference be thought. However, in the case of the *cogito*, where the thinking 'I' attempts to determine itself, a transcendental difference can be discovered, one which concerns not differences between instances, but a living difference internal to thought. This concept of the 'I' is

not a specificity, not a specific form informing matter, not a memory informing a present, but the pure and empty form of time. It is the empty form of time which introduces and constitutes Difference in thought, on the basis of which it thinks, in the form of the difference between the indeterminate and the determination. (Deleuze, 1994, p. 276)

Between any given matter and its conceptual determination lies always a fraction of time. A microtime 'is' hidden in every thought. Most fundamentally, this fraction lives in the thinking 'I' itself, as this is the point at which thinking is individualized and determines itself as the agent of thought, experienced in the infinite regress of trying to grasp the one who is thinking. This difference signals pure thought, a thinking wrested from all empirical content, from all the elements of the other faculties.

A Pure and Empty Form of Dead Time

If the first sub-representative synthesis is the synthesis of the present, of matter and sensation, and the second the synthesis of the past, of the virtual actualization of time, then what is discovered as the internal difference of thinking is a pure and empty form of time. This is a third 'static' synthesis of time. To understand its nature and role in Deleuze's system it is necessary to see how he describes it as a fundamentally 'dead' time involved in the formation of representational consciousness.

This is important because it gives the reason for why human consciousness is not in contact with the living forces of the world. The first two sub-representative syntheses of time portray a living dynamic universe, a vital materialism where a larval subjectivity inhabits matter. But our conscious thoughts and perceptions are not in continuity with this living world. Rather, for representational consciousness the world has died and become a mere 'image'. It is represented, as the word implies.

We already saw how Deleuze relates the model of recognition to this suppression of difference. In recognition, all the faculties are brought to bear on an object for a thinking subject. These two poles of common sense involve a representation of time for and *as* the constitution of consciousness. It makes the living world of flows and metamorphosis into one of fixed object. Instead of productive differences, the world appears as consisting of already-formed identities. This machinery of identity and stasis Deleuze describes as a 'freeze-frame':

The empirical contents are mobile and succeed one another, while the *a priori* determinations of time, on the contrary, are fixed or held, as though in a photo or a freeze-frame, coexisting within the static [third] synthesis. (Deleuze, 1994, p. 294)

Out of a living world, representation is produced as a doubling image, a freeze-frame in which the content of empirical experience rolls on while consciousness remains a spectator, an intentionality, a thinking subject living of a pure and empty time, filling it with representations of the world. The relation between content of experience and consciousness is predetermined

by this static synthesis. It is as if one is excreted from the world, and from this impotent and lifeless position imposes on the world an 'image' which remains invisible because transparent: a pure and empty *a priori* determination of time as Deleuze says. The durations of things, their heterogeneity, is suppressed in favour of the representation of time as a homogeneous time-frame. Inside this freeze-frame, each being becomes a thing rather than the event which it is.

A static synthesis producing a pure and empty form of time thus lies behind the form of representational consciousness. This pure and empty form of time is a dead time because it is time abstracted and released from the living forces of the body and its environment. It is a living 'death', death present *in* the living as opposed to death perceived as a return to inanimate matter:

Death does not appear in the objective model of an indifferent inanimate matter to which the living world would 'return'; it is present in the living in the form of a subjective and differentiated experience endowed with its prototype. It is not a material state; on the contrary, having renounced all matter, it corresponds to a pure form – the empty and pure form of time. (Deleuze, 1994, p. 112)

Death corresponds to a pure and empty form of time Deleuze writes, and this pure and empty form of time is also a difference hidden in thinking. This 'death' present in the living can explain why we lose touch with the vital forces of the world, the sub-representational domain. To put it pictorially, this logic thus tells of a living death that abstracts and devitalize the living time of the first two sub-representative syntheses. A pure and empty form of time is born as the sub-representational time of representational thinking.

Deleuze also has an elaborate account of individuation developed from a critique of Freud's psychoanalytic concepts in which he shows the formation of the ego to be bound up with this third synthesis. Emerging from the actual-virtual circuit is thus a dead, pure and empty form of time constituting the ego and the representation of the 'I' built 'upon it'. It is the site or element of human representational consciousness, a time-consciousness which is not the living present of matter, not the pure past of the virtual, but an element of pure and empty time; time abstracted from all content and released as the pure element of thinking. When Descartes develops his *cogito*, he folds this empty time into a kernel of a self-referential $I = I$, but in the very same moment covers the underlying substratum that makes this determination possible. Therefore, 'death is inscribed in the I and the self, like the cancellation of difference in a system of explication, or the degradation which compensates for the processes of differentiation' (Deleuze, 1994, p. 259). The cancellation of difference is the freezing of life into the prototype of death-within-life.

But this creates a reversed perspective on the relation between 'life' and 'death'. These concepts now enter into a dynamic relation. If death constituted human consciousness by cancelling living differences, then by the same token, 'death' must be double. While the disintegration and disappearance of the personal I is one side, death will also mean the release of life: 'an internal power which frees the individuating elements from the form of the I or the matter of the self in which they are imprisoned' (Deleuze, 1994, p. 259). This is 'death' coming not from without, as an empirical instance, but from within, as the internal power of liberating difference. There is here, as we will see, a logic of *Stirb und Werde*, die and become. The creation of thinking concerns precisely this difference between 'life' and 'death' as the reversal into each other of a living death and a dying life.

The Creation of Thinking: The Event

In the foregoing, a difference was discovered in the *cogito*, an empty interval between determination (I am) and that which is determined (the thinking being). This imperceptible, transcendental difference is what must be thought. In the infinite regress of trying to think the thinker, grasping the one who grasps, the act of thinking turns in on itself without being able to catch that which is to be determined, and is thus unable impose a conceptual judgement (determination of a content). It remains a pure and empty thought-act. But to the extent that this act could become a ceaseless activity, the element of pure thinking would be thought as the pure form of determinability. The dead element that constitutes representation would then be invigorated and activated, and would come to life in and through the thinker. The thinker would raise the dead stream of time of the ego back into proximity to the intensive field, making the substrate of representation into a sensation of intensity. Thinking here changes from being acts of conceptual determinations to sensation of this differential life. As pure and continuous thinking activity, determination and that which is to be determined are no longer distinguishable by an act. In this becoming-active, consciousness is brought back in touch with the life whose suppression it is otherwise living from. According to Deleuze, this is what Fichte realized when he converted the act of putting the I into *life* and rediscovered Spinozism as the most elemental operation of philosophy:

Fichte, to the extent that he overcomes the aporias of subject and object in his later philosophical works, presents the transcendental field as a life, which does not depend on a Being and is not subjected to an Act – an absolute immediate consciousness whose very activity does not refer to a being, but is ceaselessly grounded in a life. The transcendental field thus becomes a genuine plane of immanence, reintroducing Spinozism into the most elemental operation of philosophy. (Deleuze, 2007, p. 386)

In this transformation, what flashes up in the act of thinking would be realized as a force which works upon the thinker as an Other: here, 'It' thinks in 'me' according to a 'schizophrenia in principle which characterizes the highest power of thought' (Deleuze, 1994, p. 58).

This is a radical transformation of what it means to think. If we wrest difference from the unifying power of common sense, then this pure and empty form of time emerges as a *force* in pure thinking, and to think now becomes a matter of *following* these intensive movements.

This means that the dead and empty time is encountered and 'thought' as such, and that a new vital element develops. But in this exploration and realization of the third synthesis, Deleuze says that 'there is an experience of death which corresponds to the third synthesis of time' (Deleuze, 1994, p. 114). This can only mean that this prototype of death is experienced as a force internal to life in and as thought. Thinking becomes here a differential play of forces, between the force of 'Form' which captures life, as the freeze-frame which homogenizes time and grounds the model of recognition and individuation of the *cogito* on the one hand, and on the other a whole non-organic life of things, as the sub-representational synthesis of time. Forces of contraction and expansion, traversing the body and the perceived world and which belong to Deleuze and Guattari's notion of sensation, will now be 'thought.'

Thus, in the event, when the third synthesis is not only producing thought but itself comes to be thought, thinking is created in thought. It is here that the pure and empty form of dead time can be turned against itself. When thinking is created in thought, it regains an intensive field from which the third synthesis can be thought, and as such the production of dead time can be experienced. Thinking thinks itself, its own passion and its own internal pure difference by becoming itself the 'difference' between life and death, incorporating the one into the other. If death as a prototype internal to life is the pure and empty time constitutive of representational thinking and consciousness, then this dead and frozen consciousness itself dies when this 'difference' is internalized and individuated. But this means that death is turned against itself, that this 'death' itself dies in the face of an intensive life.

In the *Logic of Sense* Deleuze sums up this as the event of all events which transmutes *Thanatos*. This is a metamorphosis where death loses itself in itself as the substitution of the I (*cogito*) and self ('me') with a 'figure' that the most singular life takes on:

It is at this mobile and precise point, where all events gather together in one that transmutation happens: this is the point at which death turns against death; where dying is the negation of death, and the impersonality of dying no longer indicates only the moment when I disappear outside of myself, but rather the moment when

death loses itself in itself, and also the figure which the most singular life takes on in order to substitute itself for me. (Deleuze, 2004b, pp. 173–174)

Thinking must be created Deleuze says: ‘to think is to create – there is no other creation – but to create is first of all to engender “thinking” in thought’ (Deleuze, 1994, p. 147). If ‘difference is crucified’ on the four branches of the *cogito*,⁸ then the discovery and release of this difference in thought belongs to a trajectory that can lead to the creation of thinking. In this creation, the living death that constitutes human consciousness is experienced and individuated. It is turned against itself, loses itself in itself, and ‘the figure’ which this ‘most singular life takes on’ substitutes itself for ‘me’. An internal revolution takes place, a transmutation of consciousness. To think will now be to live the non-organic life of the world as eternal return of differences, and thus to raise and metamorphose the individuation of the ego – the personal individuations determined by recognition and the *cogito* – to the individuation of an *ante-I* and the *ante-Self*:

[It] is the I and the self which are the abstract universals. They must be replaced, but in and by individuation, in the direction of the individuating factors which consume them and which constitute the fluid world of Dionysus. What cannot be replaced is individuation itself. Beyond the self and the I we find not the impersonal but the individual and its factors, individuation and its fields, individuality and its pre-individual singularities. For the pre-individual is still singular, just as the ante-self and the ante-I are still individual – or, rather than simply ‘still’, we should say ‘finally’. (Deleuze, 1994, pp. 258–259)

2.3 Disjointed Faculties and Metaphysical Organs

Deleuze’s philosophy gives us an image of what is possible if the processes of thinking and sensing are taken as potentials. Our ordinary representations are formed on the basis of temporal syntheses that remain hidden behind or beneath consciousness. They are sub-representational. The process of gaining access to these sub-representative syntheses requires overcoming ‘recognition’ and what Deleuze calls the dogmatic image of thought by means of a *disjoining* of the faculties. A disjointed exercise frees the faculties from functioning in a unitary ‘common sense’ and brings each faculty ‘to the extreme point of its dissolution [where]

8 ‘The “I think” is the most general principle of representation – in other words, the source of these elements and of the unity of all these faculties: I conceive, I judge, I imagine, I remember and I perceive – as though these were the four branches of the Cogito. On precisely these branches, difference is crucified.’ (Deleuze, 1994, p. 138)

it grasps that in the world which concerns it exclusively and brings it into the world' (Deleuze, 1994, p. 143). Perception is 'molecularized' and becomes a flux of sensations no longer organized according to the representation of a unitary object. This means to attain a sensation no longer informed by conceptual determination, memories, imaginations and associative elements and other habits of perception. Similarly, for empirical memory to be returned to its origin in the ontological being of the pure past, the relation to the past must be established outside any perceptual image, conceptual determination and other representational contents. The past must be remembered in itself, as pure past, where virtual fragments of this pure part are experienced. This would be a pure act of memory, outside the mixture with other faculties of common sense. In thought, pure thinking is to be created. Pure thinking is no longer functioning by means of conceptual recognition and representation of ideas. Rather, following its metamorphosis, the pure and empty form of time is 'thought' as an intensive force behind representation, and thinking becomes able to grasp the differential play of life and death at the heart of its own formation. Having attained this in-itself of difference, it is becoming a faculty for Ideas understood no longer as conceptual representations, but as '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' (Deleuze, 1994, p. 146).⁹ Deleuze summarizes this metamorphosis of the faculties by saying that when the faculties reach their limit, and beyond it dissolves into the elements from which they originate, they become 'metaphysical organs' (Deleuze, 1994, p. 140).

But then again, how can we understand this disjoining? What are the means of unhinging the faculties from common sense and liberate them from the dogmatic image of thought?

The dogmatic image of thought has two knots to be untied. These are recognition of an object based on a convergence of all the faculties, and the *cogito* as the corresponding subjective ground of identity. The model of recognition is based on these two poles, and there is thus two gates or poles on which to work towards an intensive convergence of thinking and sensation. In the fissure of the *cogito* difference can be discovered as the potential for pure thinking. In the encounter with intensive differences in the sensible, sensation can be raised to its transcendent exercise independent of the other faculties.

9 Deleuze says that we must pose the question of a transcendent exercise also for other faculties, such as the imagination or language: 'is there an *imaginandum*, a *phantasteon*, which would also be the limit, that which is impossible to imagine?; for language – is there a *loquendum*, that which would be silence at the same time?; and for the other faculties which would find their place in a complete doctrine - vitality, the transcendent object of which would include monstrosity; and sociability, the transcendent object of which would include anarchy - and even for faculties yet to be discovered, whose existence is not yet suspected' (Deleuze, 1994, p. 143).

Despite the fact that these two processes are complementary, and that thinking and sensation converge in and as intensity, in *Difference and Repetition* Deleuze clearly privileges sensibility as the pole capable of setting off the disjoining of the faculties:

It is true that on the path which leads to that which is to be thought, all begins with sensibility. Between the intensive and thought, it is always by means of an intensity that thought comes to us. The privilege of sensibility as origin appears in the fact that, in an encounter, what forces sensation and that which can only be sensed are one and the same thing, whereas in other cases the two instances are distinct. In effect, the intensive or difference in intensity is at once both the object of the encounter and the object to which the encounter raises sensibility. (Deleuze, 1994, pp. 144–145)

Here something forces sensation to act *on its own*, outside the ‘common sense’ of all faculties. Deleuze finds a model for this in Kant’s account of the experience of the sublime where the imagination is forced to its limit by an encounter with immensity, with the unimaginable in nature. In this experience Deleuze finds a movement of the faculties that tends towards a disjointed exercise where the imagination

transmits this constraint to thought itself, which in turn is forced to think the supra-sensible as foundation of both nature and the faculty of thought: thought and imagination here enter into an essential discordance, a reciprocal violence which conditions a new type of accord. (Deleuze, 1994, p. 321)

Something comes from the outside, something takes hold of sensing, and draws it out of its empirical exercise. An event, an intensity that disrupts consciousness seems to be required for the unhinging of the faculties.

As we saw above, the discovery and liberation of difference in the *cogito* is also a part of this liberation of the faculties. As the most general principle of representation, this coagulated representation needs to be transformed and made into intensive difference. But even if there are two poles, Deleuze presents the encounter with an intensity in the sensible as what is capable of setting off the process.

Compared to *Difference and Repetition*, in *What is Philosophy?* this whole problematic seems to have been somewhat displaced. The doctrine of the faculties no longer plays an important role (on the surface) and it is no longer the same emphasis on how thinking will be engendered via an intensity in the sensible. Concepts are themselves intensive ordinates, centres of vibrations that ‘freely enter into relationships of nondiscursive resonance’ (Deleuze & Guattari, 1996, p.

23). The analysis of the *cogito* plays an important role also in this book – perhaps even more so than in *Difference and Repetition* – but the discovery of its internal difference now seems to be less the result of encountering intensity in the sensible than as part of a pedagogy of conceptual creation that by itself can take us onto a plane of immanence.

Philosophical concepts are fragmentary wholes that are not aligned with one another so that they fit together, because their edges do not match up. They are not pieces of a jigsaw puzzle but rather the outcome of throws of the dice. They resonate nonetheless, and the philosophy that creates them always introduces a powerful Whole that, while remaining open, is not fragmented: an unlimited One-All, an ‘Omnitudo’ that includes all the concepts on one and the same plane. It is a table, a plateau, or a slice; it is a plane of consistency or, more accurately, the plane of immanence of concepts, the planomenon. Concepts and plane are strictly correlative, but nevertheless the two should not be confused. (Deleuze & Guattari, 1996, p. 35)

The role of philosophical creation and modulation of concepts is here explored as constituting a plane of immanence. Philosophical thinking itself can approach ‘the not-external outside and the not-internal inside – that which cannot be thought and yet must be thought, which was thought once, as Christ was incarnated once, in order to show, that one time, the possibility of the impossible’ (Deleuze & Guattari, 1996, p. 60).

The focus on philosophy as conceptual creation emerging from modulations and displacements of conceptual components arguably presents a different nuance, a new tone. In *Difference and Repetition*, even if the discovery of difference in itself is made in the heart of the *cogito*, ‘on the path which leads to that which is to be thought, all begins with sensibility’ (Deleuze, 1994, p. 144). *What is Philosophy?* arguably no longer privileges sensibility as origin in the same way, but displays conceptual creation and modulation as an equal source of bringing forth intensity. The concept itself harbours intensities and differential elements whose ‘pedagogy’ can lead to the creation of thinking. Philosophy – differentiated from the task of art whose concern is precisely with the intensive dimension of sensibility – is concerned with the singular point where concept and creation are related, and this creation is one that modulates and coagulates new concepts as part of lodging thought onto a plane of immanence.

The concept posits itself to the same extent that it is created. What depends on a free creative activity is also that which, independent and necessarily, posits itself in itself: the most subjective will be the most objective (Deleuze & Guattari, 1996, p. 11).

These quotations show that the creative power of thought that resides in the conceptual discovery of difference here seem to fuse intensities with intensities no longer dependent on the sensible as privileged origin. Philosophy constitutes a field of intensive individuation that is no longer depicted as dependent on an encounter with intensive differences in the sensible register, but conceptual thought is capable of laying out a plane on its own. Whether this – together with the disappearance of the notion of ‘faculties’ – reflects a genuine change and reorientation or merely a different emphasis is not going to be pursued here. In any case the importance of overcoming recognition remains a constant. Arguably, in this later account the convergence of various faculties of memory, thoughts and various sensation also remain an implicit problem to be overcome and transformed. And in this process, as already noted, there are generally speaking two poles: The thinking *cogito* and its corresponding ‘objectivism’ in perception.

Following the trajectory of *Difference and Repetition*, Deleuze says that the beginning of that which is to be thought is found in an encounter with a *sign*, which is not something referring to something else, but an element in the sensible that can *only* be sensed:

its primary characteristic is that it can only be sensed. In this sense it is opposed to recognition. In recognition, the sensible is not at all that which can only be sensed, but that which bears directly upon the senses in an object which can be recalled, imagined or conceived. The sensible is referred to an object which may not only be experienced other than by sense, but may itself be attained by other faculties. It therefore presupposes the exercise of the senses and the exercise of the other faculties in a common sense. The object of encounter, on the other hand, really gives rise to sensibility with regard to a given sense. It is not an *aistheton* but an *aistheteon*. It is not a quality but a sign. It is not a sensible being but the being *of* the sensible. It is not the given but that by which the given is given. It is therefore in a certain sense the imperceptible [*insensible*]. It is imperceptible precisely from the point of view of recognition - in other words, from the point of view of an empirical exercise of the senses. (Deleuze, 1994, pp. 139–140)

What is this sign that brings sensibility in contact with the imperceptible? For Deleuze, this sign is not a signifier, something that stands for something else, but an intensity. But what does this mean?

A colour, for example red, can be experienced as more or less intense, more or less saturated. Temperature and motion are experienced similarly: having degrees of intensity, which undergo intensification or remission. These examples bring us close to an understanding of what the

notion of intensity implies. The crucial thing, however, is that in all these cases we still tend to attribute intensity to the extensive: spatial bodies are hot or cold, particles are moving etc. However, the sign that can only be sensed and which gives rise to sensation of the imperceptible is an intensity that is no longer attached to the form of an object. It is a free state of difference as Deleuze also puts it.

In Deleuze's ontology, all bodies are actualizations of intensive differences. As a category, intensity is not dependent or parasitic upon something being more or less intense, but is productive of this 'something' in the first place. Intensity is the reason of the sensible:

difference or intensity (difference of intensity) –is the sufficient reason of all phenomena, the condition of that which appears. Novalis, with his tourmaline, is closer to the conditions of the sensible than Kant, with space and time. The reason of the sensible, the condition of that which appears, is not space and time but the Unequal in itself, *disparateness* as it is determined and comprised in difference of intensity, in intensity as difference. (Deleuze, 1994, pp. 222–223)

Intensity conditions that which appears, it gives rise to the sensible.¹⁰ In relation to the sub-representational temporal syntheses, intensity is the time *of things* or event as perpetually constituted as a present that passes within the virtual–actual circuit. Intensity is the middle term between these concepts: the virtual *actualizes* itself as differences in intensity, as intensive difference. Individuation, the creation of individuated beings, follows an 'act by which intensity determines differential relations to become actualized, along the lines of differentiation and within the qualities and extensities it creates' (Deleuze, 1994, p. 246).

Because intensity is actualized as extensity and sensible qualities, it is implicated in sensible qualities, in colours, sound, warmth and so on. But in all these cases, intensity also cancels itself in the generation of qualities. Thus when we sense the intensity of a colour, we sense the *colour* as having a degree of intensity. In normal experience we 'know intensity only as already developed within an extensity and as covered by qualities' (Deleuze, 1994, p. 223). But what Deleuze tells is that, comparable to how we can experience the quality of a colour independently of the object, forgetting that to which it is an attribute and experience only the colour, so the same can happen in the relation between colour and intensity. Then we no

¹⁰ Deleuze presents an elaborate deduction of space and time from a field of intensity that naturally goes beyond the scope of this thesis. It is found in the fifth chapter 'Asymmetrical Synthesis of the Sensible' in *Difference and Repetition* where he presents three spatial syntheses that produce extensive space and the qualities of objects. This field of intensity belongs to what he calls the *spatium* which is the spatial correlate of the pure past: the virtual continuum.

longer have intensity experienced via the qualities of ordinary perception – what Deleuze also calls covered intensities – but intensity in itself.¹¹

This is the element of the encounter, what is implicated in the sign. It is something that is intensively present *in* the sensible, yet imperceptible for empirical perception. It is an event, a flow or a force that cannot be perceived and integrated by the system of perception.

It is not figures already mediated and related to representation that are capable of carrying the faculties to their respective limits but, on the contrary, free or untamed states of difference in itself; not qualitative opposition within the sensible, but an element which is in itself difference, and creates at once both the quality in the sensible and the transcendent exercise within sensibility. This element is intensity, understood as pure difference in itself, as that which is at once both imperceptible for empirical sensibility which grasps intensity only already covered or mediated by the quality to which it gives rise, and at the same time that which can be perceived only from the point of view of a transcendental sensibility which apprehends it immediately in the encounter. (Deleuze, 1994, p. 144)

This encounter with intensity can only be indicated, pointed towards. No object or empirical experience can refer us to the being of intensity, albeit any object or experience in principle could give rise to an encounter insofar as they are covered intensities. To sense this intensive force outside the qualities and objectifications of ordinary perception is to sense difference in itself, and this is simultaneously what raises sensibility to its transcendent exercise.

According to Deleuze, the encounter with intensity can become the beginning of a process whereby ‘a chain of force and fuse’ runs through and unhinges the faculties from common sense, bringing each ‘face to face with its own element’ (Deleuze, 1994, p. 141). How can we understand this fuse that disjoins the faculties? From the point of view of the temporal logic of the sub-representative syntheses explored above we can understand the encounter with intensity as something that takes us into the becoming of sensation. At the heart of the contraction of the present things are no longer given in the form of objects but dissolve into a play of intensive forces. Sensation is no longer an empirical instance, but a difference internal to this intensive field of difference as contemplative contraction of matter:

11 In her account of Deleuze’s revival of the concept of intensity, tracing its roots in the history of philosophy, Mary Beth Mader stresses that ‘intensities, although they are the source of sensations and of experience, are not sensed or experienced as intensities themselves. It is the coupling of an intensifying or remitting quality with an extension that is the way in which intensities are registered’ (Mader, 2014, p. 239). However, as I will continue to argue in the following, it seems obvious that Deleuze also holds it to be possible to encounter intensity in itself. This is precisely the domain of a transcendental empiricism. Whether Mader holds a different position or not is not clear from her account, but in the article, she never relativizes the categorical claim made in this quotation.

Sensation, then, is on a plane that is different from mechanisms, dynamisms, and finalities: it is on a plane of composition where sensation is formed by contracting that which composes it, and by composing itself with other sensations that contract in turn. Sensation is pure contemplation, for it is through contemplation that one contracts, contemplating oneself to the extent that one contemplates the elements from which one originates. (Deleuze & Guattari, 1996, p. 212)

Here sensation enters the first sub-representative synthesis of time, the living sub-representative present. But by the same token, because the living present *is* the actualization of the virtual, the paradox of the contemporaneity of the past with the present can also surface. It is the pure past which conditions the present as passing and in this way the intensity that sensibility is caught up in can exert a violence and force memory to act on its own. What is then remembered is not a past that was once present, but the 'pure past', the virtuality of time as co-existence.

In the heart of the living now the pure past awakens and expands consciousness into the virtual, but when this happens, thinking is also created in thought. The 'fuse' is therefore the release of the difference at the heart of thought, that pure and empty time which knits representations by hinging the faculties onto a common mould of the '*cogito*' and its 'object'. When this difference is released, the *cogito* is fractured, the faculties unhinged, and the virtual enters the pure and empty time: 'The fracture or hinge is the form of empty time, the *Aion* through which pass the throws of dice' (Deleuze, 1994, p. 284). If nature is cyclical and the time of representation a line of succession, *Aion* will insert itself into this line when its length is no longer finite but reveals the 'projective geometry' of an infinite 'line':

This is how the story of time ends: by undoing its too well centred natural or physical circle and forming a straight line which then, led by its own length, reconstitutes an eternally decentred circle. (Deleuze, 1994, p. 115)

2.3.1 A Pedagogy of the Senses

In addition to the emphasis on a fortuitous encounter that can awaken sensibility to its transcendent exercise, there is also an apprenticeship involved. In *Proust and Signs* this is displayed as an apprenticeship in 'signs', learning how to sense and decipher what is hidden and involved in signals and sensations that come from the various registers of the world. As we saw above, in *Difference and Repetition* a 'sign' is precisely the sensation of an uncovered

intensity that forces sensibility to its transcendent exercises, and in this book a similar idea of an apprenticeship in signs is alluded to as a ‘pedagogy of the senses’:

The point of sensory distortion is often to grasp intensity independently of extensity or prior to the qualities in which it is developed. A pedagogy of the senses, which form an integral part of ‘transcendentalism’, is directed towards this aim. (Deleuze, 1994, p. 237)

Sensory experimentation and aesthetic experience thus constitute an apprenticeship, a pedagogy of the senses that informs philosophical operations and conceptual productions. Together with philosophy’s pedagogy of the concept, this constitutes a transdisciplinary field. The role of art in Deleuze’s authorship can be understood from this perspective as an integral part of a project exploring intensities. The following chapters will explore ideas about sound as intensity and music as an apprenticeship in intensities, approaching music as intensive experience and asking how music can be understood as producing intensities. For now, two other examples of such apprenticeship can be indicated, both relevant to the intensive nature of music: colour and movement.

Intensity and Colour: Farbenlehre

In *What is Philosophy?* Deleuze and Guattari refer to Goethe’s *Farbenlehre* (*Theory of Colours*) as an example of experimentation. Goethe, they say, creates a philosophical concept of colour:

Goethe constructs an imposing concept of color, with inseparable variations of light and shade, zones of indiscernibility, and processes of intensification that show the extent to which there is also experimentation in philosophy; whereas Newton constructed the function of independent variables or frequency. (Deleuze & Guattari, 1996, pp. 161–162)

This is relevant to the present work for several reasons. First, it gives an indication and practical example of what can be understood by ‘experimentation’ in philosophy. Second, Goethe and his approach to morphology and colour will become central to the study of the composers discussed, as he influenced both Schönberg and Scelsi. Finally, Goethe’s concept of colour is differential.

Goethe understands colours as coming about through the *Ur*-polarity of light and darkness, represented in the colours yellow and blue: ‘Two pure original principles in contrast are the foundation of the whole *Farbenlehre*’ (Goethe, 2003, p. §707). For Goethe, light and

darkness are not external, empirical phenomena, but transcendental principles. Darkness is not simply the absence of light; both light and darkness are constitutive of the emergence of colours, which are mixtures of light and darkness. The differential relationship between the two forces gives rise to the visible through the darkening of light – the origin of the warm and light colours – and the lightening of darkness, giving rise to the dark and cold colours. Thus, the world of colours and the whole field of visibility is permeated by the polar forces of expansion and contraction, with the primal colours yellow and blue representing this polarity. Goethe outlines this with the following list:

<i>plus</i>	<i>minus</i>
Yellow	Blue
Action [<i>Wirkung</i>]	Privation
Light	Shadow
Brightness	Darkness
Strength	Weakness
Warmth	Coldness
Proximity	Distance
Repulsion [<i>Abstossen</i>]	Attraction
Affinity with acids	Affinity with alkalis

Between these pure colours are the compounds, colours that come about through a further mixture of light and darkness, such that every colour is already a differential relation.

Stephen Zepke writes that the foundational idea of this theory of colour can be found in Deleuze's *Difference and Repetition*, in which each sensible being is understood as constituted from a differential relationship between forces, defined as the being *of* the sensible: 'Every phenomenon refers to an inequality by which it is conditioned' (Deleuze, 1994, p. 222). For Deleuze, Goethe's theory implies that every colour is itself a difference, each a 'differential equation of two colors which are themselves differentials, each color being constituted by a heterogeneous series of differences' (Zepke, 2005, p. 201). Each colour thus implicates an infinite series of difference, 'infinitely doubled difference which resonates to infinity' (Deleuze, 1994, p. 222). The world of intensive difference is enfolded in colour, and colour is not an attribute of substance or a subjective representation but an event within a system of differential relations.

In *Francis Bacon: The Logic of Sensation*, Deleuze writes that the painters he calls colourists work not with lines and forms in an optical space of sight but through a 'haptic sight' of intensive relations between colours. This haptic sight belongs to an intensive space defined

by 'the relative opposition of warm and cool, and the corresponding eccentric or concentric movement of expansion or contraction' (Deleuze, 2005, p. 92). Here,

color itself is discovered to be the variable relation, the differential relation, on which everything else depends. The formula of the colorists is: if you push color to its pure internal relations (hot-cold, expansion-contraction), then you have everything. If the color is perfect, if the relations of color are developed for their own sake, then you have everything: form and ground, light and shadow, bright and dark. Clarity no longer resides in the tangible form or the optical light, but in the incomparable flash produced by complementary colors. (Deleuze, 2005, p. 97)

Goethe's colour theory is philosophical because it understands colours and their genesis as events rather than functions of independent variables. Whereas Newton creates a scientific function which maps the relationship between quantifiable data within sensible phenomena, Goethe extracts the 'event' of colour and creates its concept from the polarity of the forces of expansive light and contractile darkness. Newton understands intensity in a referential manner, formalizing the relationships between energy and colour; Goethe experiments with the intensive differences in seeing itself.

When looking at a bright colour, its dark complementary colour will be produced in the eye, and our experience of colours consequently brings the act of sensing into contact with this polarity. By starting with the physiological aspects of colour-seeing, the phenomenon of complementary colours and after-images, Goethe grounds his work in an element preceding the subject and the object. Goethe considers any perception of a phenomenon to be possible only because this phenomenon is already pre-formed in the organs. Because the eye itself is contracted light, it discloses light and produces complementary colours on the retina. The polarity between light and darkness that brings about colours is active in the eye, as an organ formed by and for these forces.¹² Vision is ultimately grounded in the intensive difference between these forces where there 'is neither an inside nor an outside, but only a continuous creation of space, the spatializing energy of color' (Deleuze, 2005, p. 93). In this sense, 'if you push color to its pure internal relations (hot-cold, expansion-contraction), then you have everything' (Deleuze, 2005, p. 97).

Goethe attempts to demonstrate how one can understand and experience this concept of colour by referring to a large number of experiments. Here, we find the pedagogical element of his theory. Goethe's theory is created from the experience of complementary colours in the

12 Goethe sums up this view in his famous verse: 'Wär nicht das Auge sonnenhaft, Die Sonne könnt es nie erblicken; Läg nicht in uns des Gottes eigne Kraft, Wie könnt uns Göttliches entzücken?' (Goethe, 2003, p. 57).

eye as well as the differentiation and intensification of the qualities of colour to the extent that they show what Goethe called their moral effect, or the affects of colours. *Farbenlehre* is thus a book of experimentation, and this is also why Deleuze and Guattari say that Goethe shows the degree to which there is experimentation in philosophy. Goethe's concept is what he calls an *Ur-phenomenon*, wherein colour emerges from the polarity of light and darkness, two fundamental forces in nature that live in the eye and the soul as much as in natural phenomena.

The role of experimentation as a means of expanding the experience of colour can thus be understood as a pedagogy of the senses aimed at expanding their capacity for differentiation, endurance and intensification. It is an example of thinking engaged *in* phenomena, following their emergence and extracting the concept of their event to the extent that seeing and colour may coincide as differences in intensity.

Movement and Intensity

Another experimental problem that belongs essentially also to music is movement and how we perceive it. In *A Thousand Plateaus*, Deleuze and Guattari direct the reader to this problem and outline the possibility of an intensive experience of movement, leading to a sense of what it means to apprehend intensity in any sensory modality.

Movement is change, and as such it shows us an act of difference. But the paradox of imperceptibility resides with regard to movement as with the intensive dimension behind sensible qualities. When we perceive movement, we perceive relations between extensive bodies. Here we can note how the principle of recognition and harmonious exercises of various faculties is at work: we sense movement 'after' perception has distinguished and differentiated objects that are apprehended relative to each other. But in this, the intensive dimension of movement, movement *as such* remains imperceptible. As Deleuze and Guattari put it, perception only grasps movement as displacement of moving bodies or development of forms (Deleuze & Guattari, 2007, p. 280). The difference in spatial location or in the stages of a developing form, are in this sense only surface effects, results of differences in intensity that drive change but are covered by what is perceived. In this sense our perception is always too late. This lateness is a function of the perceptual apparatus in its normal functioning. On this 'plane of organization' – the actual world of objects for a subject – movement is imperceptible, perceived only via the objects which mediates it for representation. To perceive movement *as such* we would have to reach a 'plane of immanence' where movement is no longer 'outside', external to perception, similar to how the concept of colour can only be created by constructing it on a plane of immanence where it converges with sight. On this plane of immanence everything

is movement, it passes through all bodies as their 'principle of composition' Deleuze and Guattari write:

on the other plane, the plane of immanence or consistency, the principle of composition itself must be perceived, cannot but be perceived at the same time as that which it composes or renders. Movement is no longer tied to the mediation of a relative threshold that it eludes ad infinitum; it has reached, regardless of its speed or slowness, an absolute but differentiated threshold that is one with the construction of this or that region of the continued plane. (Deleuze & Guattari, 2007, pp. 281–282)

The description Deleuze and Guattari give is one where movement is perceived *in itself*, no longer relative to stasis, attributed to extensities in an extensive space. But isn't this very close to how one perceives music? All 'objects' of musical formation are nothing but movement. Movement is perceived both as principle of composition and as that which it composes. Perception itself becomes become intensive difference, movement in the midst of the perceived. Thus, music can serve as a model for this realization of intensive movement in perception, and the plane of immanence can be conceived as a musical plane.

Perception will no longer reside in the relation between a subject and an object, but rather in the movement serving as the limit of that relation, in the period associated with the subject and object. Perception will confront its own limit; it will be in the midst of things, throughout its own proximity, as the presence of one haecceity in another, the prehension of one by the other of the passage from one to the other: Look only at the movements. (Deleuze & Guattari, 2007, p. 282)

When movement and becoming is no longer mediated and relative to the stasis of objects and a perceiving subject, perception itself becomes movement in an ocean of movement. This is what in the next chapter will be termed a 'molecularization' of perception, and in the coming chapters we will look at music as an artistic experimentation in this regard. But to release sensations from the model of recognition and its world of subject and object, all of the senses can be subjected to experimentation. In this we must learn to find the cracks or 'holes' in each thing Deleuze and Guattar proclaim:

Arrive at the holes, microintervals between matter, colours and sounds engulfing lines of flight, world lines, lines of transparency and intersection. (Deleuze & Guattari, 2007, p. 282)

We have to learn to sense outside the 'grid', to arrive at the *microintervals* between matter, colours and sounds as well as between words and concepts, and follow these 'lines of flight'. The intensity, the intensive difference at work in the perception of colour, sound, movement etc., must be felt, sensed in the sensation, taken hold of and *followed*. What is revealed when we follow these lines of flight according to Deleuze and Guattari? A rhythm, a rhythmic life is discovered as the ground of sensations, which is also the ground of the senses. A life that pulsates not only in the organism but also beyond it: 'This ground, this rhythmic unity of the senses, can be discovered only by going beyond the organism' (Deleuze, 2005, p. 32). It is, they say, the rhythm of a body 'without organs'.

2.3.2 Going Beyond the Organism – the Body Without Organs

What is the 'body without organs' (BwO), and what does it mean to go beyond the organism? In approaching these questions, I will attempt to answer the first via the second. In doing so I will continue the epistemological bent of this chapter and attempt to connect the concept of BwO to ideas expounded so far. A reading of the BwO which is close to my approach is captured by Joshua Ramey when he writes that 'to access this level of the body is to move beyond its discrete parts, and to map its energy flows with reference to larger cosmic patterns and dynamics (as has long been the approach to the body in terms of chakras activated by hatha yoga, or in terms of the meridians used in traditional Chinese medicine)' (Ramey, 2012, p. 105).

The human body is in constant exchange with its outside. It depends on nutrition, on the environment with all its elements. It is breathing air, taking in and giving off fluid and mineral substances, receiving and giving off warmth; it is inserted into the world of light and sound and so on. The physical body is a form that undergoes modification while being in a constant exchange of forces, a whole metabolism of energy, not only of food but also sense-impressions, ideas, feelings, and so on. From this perspective, how are we to differentiate the organism from its environment, where is the limit?

Already this shows that the organism is more often than not considered according to a dogmatic model, one based on the idea that the body is a recognizable object that can be delimited with the skin as the membrane, the limit. But insofar as the body is alive and a process, this limit is necessarily porous, and more a threshold of metamorphosis than a limit. At which point is the food on the 'inside' of the organism? When is the light, the air, the warmth and so on, on its inside? In metabolism as well as in sensing, rather than a clear and distinct limit, we should conceive of thresholds and passages where the 'inside' is a fold of the 'outside'. Material *processes* flow between the organism and its outside, life-processes where the materials of outside

and inside are in continuous metamorphoses. The sub-representational syntheses of time are concepts of such folding operations, constituting not only the organism and its senses but also the sensations and other faculties. But this means that the notion of organism and body are relativized: as a fold of the world, the living human body is a process where the elements of the outside, the materials of nutrition and sensing, flow in and through, contracting, condensing and folding themselves into an organism. The visceral organs and the sense-organs are like so many funnels through which flows the being of light, sound, air, warmth, water, minerals and so on. Thus, the organism and the organs are all part of a substratum 'beyond' their formed functioning as organs of an organism, and this points to the body as part of a greater vital body, a body 'without' organs.

As Deleuze and Guattari write, this name – taken from Antonin Artaud – is somewhat confusing as the BwO is not opposed to organs, but to an organization and determination of the organs by the organism:

The BwO is not opposed to the organs; rather, the BwO and its 'true organs,' which must be composed and positioned, are opposed to the organism, the organic organization of the organs. (Deleuze & Guattari, 2007, p. 158)

The consciousness that we are is a result of these processes of organic organization of the organs. It is composed of active cognitive syntheses build upon the sub-representative passive syntheses that constitutes the formation of organs and organism. As we have seen, the formation of a representational consciousness is a process whereby a filtering, consolidation and freezing preservation of the living world takes place. The human organism individuates life, and the organism thus 'imprisons life': it is 'that which life sets against itself in order to limit itself' (Deleuze & Guattari, 2007, p. 503). In this sense we can understand 'organic' also as a form of consciousness: 'The organic does not designate something represented, but above all the form of representation, and even the feeling that unites representation with a subject' (Deleuze & Guattari, 2007, p. 498).

We can try to understand this relation between 'organism' and 'representation' through an example. When one sees a red apple, different sense-impressions enmesh to appear as one object. Concepts and memories are imparted onto the visual sensations, recognizing it as an apple of this or that sort with this or that characteristics. This is an *active* cognitive synthesis, insofar as one directs attention to the object and inquires about it. During life such active recognitions are internalized to such an extent that they become themselves quasi-passive syntheses: one simply sees an apple without any cognitive effort. But at one time in one's life, the learning of seeing apples must have taken place, and from that time on, the internalization

of concept and memories into the perceptual apparatus are underway. Thus, various faculties converge to produce recognition.

In this process of learning to perceive, several different kinds of sensations are synthesized – contracted and preserved – into perceptions. At one point, consciousness must have begun to distinguish objects in space by seeing spatially. In this process, colour is subordinated to forms, to those lines drawn to distinguish the apple from its surroundings and background. These lines are not drawn consciously, by means of an analytic process, they are *enacted* unconsciously. To see forms and perspective is, according to the ecological theory of perception, generated by unconscious bodily movements, such as the movement of the eyes, micro-movements of muscles, and even the potentiality for movement that is felt in the body as a whole. In the words of Brian Massumi:

Depth perception is a habit of movement. When we see one object at a distance behind another, what we are seeing is in a very real sense our own body's potential to move between the objects or to touch them in succession. We are not using our eyes as organs of sight, if by sight is meant the cognitive operation of detecting and calculating forms at a distance. We are using our eyes as proprioceptors and feelers. (Massumi, 1998, p. 18)

This implies that in seeing, there takes place a synthesis of 'internal' bodily sensing of movement and proprioception, and an 'external' visual field, establishing a continuity between two heterogeneous series: the visual image as an abstract surface, and the sense of touch, movement and balance perceived internally through the body. The integration of bodily experiences of density, movement and balance that well up from the organism, and the images, sounds and other external impressions, create the sense of an embodied mind in a world of tangible objects.

The above sketch directs us towards a pre-subjective and pre-objective field of sensations, into a field of heterogeneous sensations out of which the normal objectifying perception are formed when memory and language – past experience and meaning – are folded back upon the perceived. A counterthrust of preserved past in the form of pre-conceived ideas, memories, language etc. works as a grid or plane of organization that determine the 'givens' of consciousness. One can to some extent follow and see into this field of sensations with consciousness, distinguishing between the different sense-modalities, paying attention also to how proprioception and the sense of movement intermingle and tag the sensations of the 'external' environment, infiltrating the field of vision etc. What is 'outside' the organism is contracted while the sensations of the organism are simultaneously projected onto them.

The principle of a transcendental empiricism is that of a disjointed exercise of the faculties, and we can understand this disjoining as what transforms or even unhinges the relation between the organism and 'consciousness'. Through this unhinging the continuity between the organism and its environment opens to thought, revealing the sub-representative, folding operations productive of representation. Sight is distinguished and released from the organic organization of all the organs, and no longer dependent on their dynamic. Thus, if 'organism' designates the relatively closed fold of life with its form of representation and the feeling that that unites representation with a subject, then the access to its sub-representational continuity with the living world is designated as the body without organs. On this level the organism is embedded in a field and seen in continuity with its (non-representational) outside. As van Tuinen puts it 'The body without organs, then, is the fold of the thought of the Outside. ... The body without organs is the ordeal of the soul: it is not just vibrant matter but also a passionate manner' (van Tuinen, 2016, p. 106).

On the BwO the relation between organ and body – organ of perception as part of a body perceiving other bodies – is reconfigured. As Deleuze and Guattari say above, the BwO has organs but these must be 'created' and 'positioned' (Deleuze & Guattari, 2007, p. 158). If each organ of sensation is a fold of the outside world, if the world flows into the body as so many streams of life, then the BwO is both the body and organs of this continuity, that by which it comes to be perceived as well as the body that is perceived. In *Francis Bacon, The Logic of Sensation* Deleuze described the entry on the BwO in relation to sight. The eye, he says, is liberated from

its adherence to the organism, from its character as a fixed and qualified organ: the eye becomes virtually the polyvalent indeterminate organ that sees the body without organs as a pure presence (Deleuze, 2005, p. 37).

Entering the BwO the eye is no longer an organ determined as a measurable and extensive quantity located in three-dimensional space, but a sight internal to light. Deleuze is here echoing Goethe and Plotinus in that the eye is bound light, and sight is therefore, ontologically, not an epiphenomenon of extensity (retina, brain, nerve-tissue etc.). In other words, in our common-sense form of consciousness we only have *reflected* light, and this light is created via the subordination of the organ of sight to the organism, in which, by means of the convergence of faculties every presentation is *represented* as the kindling of subjective consciousness. *This* sight is an epiphenomenon, but it is an epiphenomenon of what is in reality a self-transparent light-being in which seeing and seen coincide, and is therefore imperceptible for normal experience:

Consciousness becomes a fact only if a subject is produced simultaneously with its object, both outside the field, and both given as 'transcendents'. On the other hand, as long as consciousness traverses the transcendental field at an infinite speed everywhere diffused, consciousness can in no way be revealed. In fact, consciousness expresses itself only by being reflected on a subject which refers it to its objects. This is why the transcendental field cannot be defined by the consciousness which is nonetheless coextensive with it, but which eludes revelation. (Deleuze, 2007, pp 288–289)

When the organs are released from the organism and become seeing *as* light, hearing *as* sound, touch *as* transparent self-affection and so on, a new connection between the reflectively produced consciousness and the transcendental field is constructed. This is the creation of a section of immanence, a plateau or a local BwO.

As consciousness is no longer only constituted by the interaction between the organism and objects of perception, but also enters into the constitutive processes of the senses, it becomes one with sensations. Thus, what is 'seen' is also internally touched, as a proprioceptive or self-affective life. Therefore, as Deleuze says when the eye is liberated from organic representation it becomes multifunctioning, polyvalent. The metamorphosis of sensation therefore entails a synesthetic transversality. When the eye is liberated and becomes polyvalent, it enters into a 'haptic space' of 'close vision' where seeing is no longer representing the seen outside itself.¹³ Becoming a new transparent and permeable proprioception of intensity, one is no longer outside or transcendent to the field of vision, the seen no longer projected by organic vision, but one is folded into the seen: 'Consciousness ceases to be a light cast upon objects in order to become a pure phosphorescence of things in themselves' (Deleuze, 2004b, p. 350).

By opening a line of flight, the BwO can be connected to the individualized consciousness of the organism, thus regaining the life of the Outside. This will open to a life that is not only in the organism, but a life between and within all matter:

... everything is alive, ... not because everything is organic or organized but, on the contrary, because the organism is a diversion of life. In short, the life in question is inorganic, germinal, and intensive, a powerful life without organs, a Body that is all the more alive for having no organs, everything that passes *between* organisms. (Deleuze & Guattari, 2007, p. 499)

13 Deleuze and Guattari discuss the 'haptic space' and 'close vision' in plateau 14, '1440: The Smooth and the Striated' in *A Thousand Plateaus* (Deleuze & Guattari, 2007).

If an organism is an organic organization of organs, then an organ is the fold of a specific domain of the BwO understood as the living body of the earth. It is the 'work' of this domain of light, sound and so on. In their disjointed exercise, the faculties are returned to the element from which they originate and become metaphysical organs of an intensive body whose work is no longer dependent on this organization of mediating organs. Difference in itself is the nature of this life.

But this differential life is also *desire*. The above account, which focused on the more epistemological question of organs in the BwO, has so far overlooked this essential ethical-political dimension. For Deleuze and Guattari, desire is not based on lack or constituted from negativity; rather, desire is productivity itself, a fully real and positive element. Consequently, it cannot be reduced to the individual psyche or societal structures but is productively constitutive of both these categories. The BwO is the body of this desiring production. In this regard, Ian Buchanan compares the BwO to Pierre Bourdieu's concept of 'disposition' or *habitus*, which he says 'comes closest to capturing what might be termed the functional core of the concept of the body without organs' (Buchanan, 2014, p. 255). Conditioning desire-production and produced *by* and productive *of* desire, the BwO has the same function as Bourdieu's concept of disposition, which Buchanan explains as referring to an 'underlying attitude towards the self and the world' which determines and conditions the form our desires take (Buchanan, 2014, p. 255). What and how one desires depends on dispositions that have been internalized in the past and thus open to the future in particular ways. However, two things set the BwO and Bourdieu's disposition apart, according to Buchanan. First, as opposed to disposition, the BwO can be made. This is, in fact, the ethical question naming its plateau in *A Thousand Plateaus*: 'How do you make yourself a BwO?' Second, the BwO can be mapped, experimented on and explored.

On the BwO, desire is immanent in life, and the question of creating a BwO concerns how to attain and insert oneself into this powerful reality. The BwO and the plane of immanence are cognate ideas in the works of Deleuze and Guattari, and when the concept of the BwO eventually disappears in their work, it is replaced by the plane of immanence (Buchanan, 2014, p. 257). Differences that remain unassimilable to representation are the signs and symptoms of this reality in which there are no longer minds or things nor the dual opposition between matter and intelligence, only a thought immanent to the intensive ethereal matter of spiritual bodies:

Neither things nor minds exist, there are only bodies: astral bodies, vegetal bodies. The biologists would be right if they knew that bodies in themselves are already a language. The linguists would be right if they knew that language is always the language of bodies. Every symptom is a word, but first of all every word is a symptom. (Deleuze, 2008, p. 59)

2.4 Transcendental Empiricism and Art

For Deleuze there is an intimate relationship between transcendental empiricism and art. Art presents us with an experimentation with sensations, with reconfiguring perceptual possibilities, creating sensible aggregates that play with the relation between sensations, memory and thinking. It brings the ‘work’ of the organs in proximity to the sub-representational stratum. Art incorporates the event and can make us seize the event and be affected by it in many different ways. But even if each artwork and each artist does it differently, according to Deleuze there is a common problem that informs all art:

In art, and in painting as in music, it is not a matter of reproducing or inventing forms, but of capturing forces. ... How will sensation be able to sufficiently turn in on itself, relax or contract itself, so as to capture these nongiven forces in what it gives us, to make us sense these insensible forces, and raise itself to its own conditions? (Deleuze, 2005, p. 40)

We will explore this with regard to music in the coming chapters where we are going to look at some examples of how sensation is sought to be released from representation and be affected by intensive movements. Based on the question of how sensation will be able to capture forces we can understand how Deleuze’s transcendental empiricism has intimate links to aesthetics in the original meaning of aisthesis. Aesthetic experience explores the sensible world by creating sensible aggregates that not only show new configurations of the sensible. More profoundly these are sought to harness intensities and affects that can open experience to the being of the sensible. Thus, the two forms of aesthetics that Kant developed independently – the conditions for sensible experience in the first critique, and the theory of art in the third – now come together. Art, and especially modern art Deleuze says (in 1968) goes beyond representation and presents us with *difference in itself*

We know that modern art tends to realise these conditions: in this sense it becomes a veritable theatre of metamorphosis and permutations. ... The work of art leaves the domain of representation in order to become ‘experience’, transcendental empiricism or science of the sensible. ... Empiricism truly becomes transcendental, and aesthetics an apodictic discipline, only when we apprehend directly in the sensible that which can only be sensed, the very being *of* the sensible: difference, potential difference and difference in intensity as the reason behind qualitative diversity. It is in difference that movement is produced as an ‘effect’, that phenomena flash their meaning like signs. The intense world of differences, in which we find the reason

behind qualities and the being of the sensible, is precisely the object of a superior empiricism. (Deleuze, 1994, pp. 56–57)

2.4.1 Thinking in Terms of Percepts and Affects

In *What is Philosophy?* the work of art is defined as *a bloc of sensations* (Deleuze & Guattari, 1996, p. 164). Following the concept of sensation developed above we can appreciate this conception of art in more detail.

The work of art as ‘a block of sensations’ is further qualified as ‘a compound of percepts and affects’ (Deleuze & Guattari, 1996, p. 164). Percept and affect are two aspects of sensation. A percept concerns the pre-subjective element of a perception. ‘As percepts, sensations are not perceptions referring to an object (reference): if they resemble something it is with a resemblance produced with their own methods...’ (Deleuze & Guattari, 1996, p. 166). The percept it is not found in representation in the way normal perceptions create a relation between subject and object. The percept lies ‘below and above the threshold of perception’ (Deleuze & Guattari, 2007, p. 281). Thus we can understand percept to belong to the passive syntheses of the intensive dimension of sensation. This is a constitutive element of experience normally concealed, and the artist must work to wrest it from perception, to display it and to create ways that perception will be transformed: ‘Is this not the definition of the percept itself – to make perceptible the imperceptible forces that populate the world, affect us, and make us become?’ (Deleuze & Guattari, 1996, p. 182)

The ‘affect’ on the other hand can be said to concern the pre-personal feeling component of sensation. The affect frees experience from the personal-emotional entanglements, the emotional life that corresponds to the ego. If we reserve the word emotion for subjective feelings dependent on the subject’s own interior world, of internalized feeling states and reactions, we must distinguish the affect from this personal consciousness and subconscious. Affects are not reactions nor subjective events but rather pre-subjective forces which passes through the subject. Again, as with the percept–perception relationship this may produce and effect personal reactions and emotions, but the affect as such does not belong to this personal domain. As affect it stands on its own and belongs to the *being* of the *work*. This being, this compound of percepts and affects is realized in a material, but it exists and preserves itself in itself. Deleuze and Guattari write: ‘Even if the material lasts for only a few seconds it will give sensations the power to exist and be preserved in itself *in the eternity that coexists with this short duration*’ (Deleuze & Guattari, 1996, p. 166).

This statement harkens back to the enfolded temporal syntheses. The percept and affect are aspects of the being of sensation that from a temporal perspective belong to the first sub-representative synthesis of time, of the living present. But the intensity of the material presence is the actualization of the virtual, and sensation belongs therefore to this dimension of time's becoming where the pure past is contemporaneous with the passing present. This virtual 'eternity' coexists with the passing of time.

With this in mind we can also understand more clearly what Deleuze and Guattari mean when they say that in the artistic domain thinking takes place in terms of percepts and affects (Deleuze & Guattari, 1996, p. 198). According to Deleuze and Guattari, philosophy, science and art are the three main areas in which thinking takes place, actualizing it through the concept, function and sensation respectively.

Thinking is thought through concepts, or functions, or sensations and no one of these thoughts is better than another, or more fully, completely, or synthetically 'thought'. (Deleuze & Guattari, 1996, p. 198)

Artistic experience engages thinking as intensity and movement, fusing it with the differential play of sounds or colours, words or gestures. This makes the senses think: 'painting is thought: vision is through thought, and the eye thinks, even more than it listens' (Deleuze & Guattari, 1996, p. 195). Thinking in terms of percepts and affects is thinking immanent to the intensive register of the sensible according to Deleuze and Guattari. Or, as Éric Alliez writes in his study of *What is Philosophy?*, 'sensation, through an "identity without a functionary subject", im-plicates Thought *qua* sensible process' (Alliez, 2004, p. 68).

In this way we can understand how the conception of the work of art as a bloc of sensations, and aesthetic creation and experience as thinking in terms of percepts and affects are correlative: they designate the same from the point of view of the being of the work of art and from the point of view of the becoming which takes place. Artists incarnate sensations in their material as a 'monument' that can pass on the signs of intensity, creating sites of convergence of thinking and sensation. (Deleuze & Guattari, 1996, p. 167).

In this regard one must distinguish between what Deleuze and Guattari designate as a *technical plane of composition* on which the material under consideration is treated (sound, paint, marble, bodily movements etc.) and the *plane of sensation* which is supported by the technical plane.

In *What is Philosophy?* Deleuze and Guattari present two ways or 'poles' through which these planes can be seen to interact. The first is when 'sensation is realized in the material' (Deleuze

& Guattari, 1996, p. 193). In this case an intensive difference is created within a more or less pre-formed material, a matter which is already organized and formed, such as tonality in music, perspective in painting and classical mimetic fiction in literature. These well-formed materials already contain schemata, rules and structures upon which the sensations and differences are projected. If sensation is to turn in on itself, contract or relax, then this happens in the midst of a well-prepared technical plane of composition. Sensations and intensities are incarnated in a material that to a large extent also involves identity, figuration and form. But difference and intensities, percepts and affects will populate this preformed substance, and give it its halo and virtualities.

The other operation or approach is when it is 'the material that passes into sensation' (Deleuze & Guattari, 1996, p. 193). Instead of sensation being realized on an organized material plane, the material plane itself rises into sensation. What the artist works with in this case is an expressive matter and not forms. The sensible qualities themselves are turned into sensation, into intensive differences of sound, colour, texture and words, rather than being realised in a representational regime of sensible forms.

Even if these two ways can be understood as referring to Classical and what Deleuze and Guattari call modern art respectively, they are principal ways of understanding the relation between matter and sensation and how the two planes relate. Deleuze and Guattari make clear that they come in mixtures and are two poles on a continuum rather than really distinct. Between the two 'transitions, combinations, and coexistences are constantly being produced ...: the poles are more abstract than really distinct movements' (Deleuze & Guattari, 1996, p. 194).

Obviously, the tension between these two poles is determined also by the standpoint from which they are regarded. Between the technical and aesthetic plane there is a historical dimension such that the relation between sensation and material can be understood to be relative to the habits of perception. At some time, what has now become habit and custom with regard to perceptual experience was introduced as a novelty. The creation of perspective in painting or tonal cadence in music has probably also emitted a revolutionary effect on the perceiver once. Today we react differently to these ways of organizing the material, as they have become familiar to us.

2.5 Summary

In this chapter, I presented a reading of transcendental empiricism that centres around the notion of a disjointed exercise of the faculties spurred by an encounter with intensive difference. To understand the implications of such an encounter, I presented Deleuze's account of the sub-representative temporal syntheses. I then argued that the encounter with intensity *in itself* opens the sub-representative syntheses and that what Deleuze means by the creation of thinking is a creative repetition of the sub-representative domain in and as thought. From this point of view, normal empirical thinking appears as a pure and empty form of dead time, and empirical consciousness thus conditioned by a 'death' immanent to life. At this point of reversal, empiricism becomes transcendental and the 'intense world of differences, in which we find the reason behind qualities and the being of the sensible' becomes 'experience' (Deleuze, 1994, pp. 56–57).

In this account, the distinction between covered and unmediated intensity is crucial insofar as intensity is the being of the sensible yet cancels itself in the production of qualities and extensity. An encounter with intensive difference thus signals an opening to the being of the sensible as a field of intensive difference where any reified understanding of the world as self-identical objects dissolves and is replaced by one of nature as a play of forces. I referred to Deleuze's notion of a pedagogy of the senses, suggesting Deleuze and Guattari's reference to Goethe's *Farbenlehre* in *What is Philosophy?* and perceptual attitude towards movement in *A Thousand Plateaus* as examples of such a pedagogy. This led to my exposition of Deleuze and Guattari's idea of the BwO and how the BwO can be understood as an extension of the bodily organs into the intensive domain of the world.

Finally, I discussed art as a practice that turns sensation in towards itself in order to sense insensible forces and think in terms of these forces, what Deleuze and Guattari also qualify as percepts and affects that populate the world. Art is thus a potential site of experimentation for the construction of transcendental empiricism.

Now, how can we understand these concepts in relation to music? How does music, the temporal art *par excellence*, relate to the sub-representative syntheses of time? How should one approach the distinction between covered and unmediated intensities in music? What are Deleuze and Guattari's ideas about music as a way to encounter intensity in itself, and what consequences will this have on our understanding of what music and musical and aesthetic experience is or can be? These questions will be explored in the following chapter.

3 Music as Temporal Synthesis and Intensive Encounters

Expanded perception is the aim of art (or philosophy, according to Bergson). Such a goal can only be reached if perception breaks with the identity to which memory binds it. Music has always had this object: individuations without identity that form ‘musical beings.’ (Deleuze, 2007, p. 296)

The function of this chapter is twofold. First, I develop the concept of intensity in relation to musical experience and, through the distinction between covered intensities and a direct encounter with intensity, ask what this latter idea could mean in relation to music and aesthetic experience. Then, I present Deleuze and Guattari’s placement of this problem in their epochal reading of music history and discuss some problems and criticisms regarding this point.

The chapter begins by developing the concept of imaginative contraction in relation to musical experience, taking the experience of a melody as an example. I then employ Ernst Kurth’s notion of energetics and Daniel Stern’s concept of vitality forms to describe the experience of intensity. Against this background, I suggest that music has the capacity to situate us on the limit of the sub-representative, and that in listening to music, we are drawn closer to the event of the first synthesis of time. However, I argue that this is still an experience of listening to covered intensities. The concept of musical intensities, as discussed so far, may bring us in proximity to the domain of intensive forces as an affective expansion of perception, but I argue that this should be distinguished from a direct encounter wherein forces grasp forces.

In the second part of this chapter, I problematize the notion of a direct and unmediated encounter with intensity in music, what Deleuze and Guattari refer to as ‘a bit of Time in the pure state . . . , a grain of absolute Intensity’ (Deleuze & Guattari, 2007, pp. 95–96). I first present Deleuze and Guattari’s epochal reading of music history in which they situate the aesthetic problem of a direct encounter with intensity in what they call the ‘Modern Age’. The historical and aesthetic dimensions of their thought have been criticised on this point, and I particularly consider Michael Gallope’s criticism. I then proceed to contrast the concept of imaginative contraction developed in the first part of the chapter with the concept of a molecularized perception, or microperception. I suggest that this distinction can be used as a general approach to the epistemological problem of creating a direct encounter with intensity through musical material, paralleling the distinction between covered and unmediated intensities. On this basis, I conclude the chapter with a discussion of aesthetic experience, the

notions of affect and music in relation to Deleuze's transcendental empiricism and Guattari's treatment of music in his reading of Proust.

When I develop the notion of intensity in musical experience in the following, I use the concept of music in an open sense, such that it can be said to signify sounds (usually tones) and silences that are synthesized or contracted into temporal shapes or aggregates. While the examples used below (such as the experience of a melody) are very general and point to an experience of temporal contraction in listening applicable to a wide variety of types of music, the context of my discussion will eventually move to musical modernism in the tradition of European art music. The argument is thus developed within a rather general and indeterminate approach to what constitutes musical experience in the first part, and moves in the direction of a more concrete musical context in the second part when I discuss the problem of a direct encounter with intensity. On this background one could ask whether the claim is made that a direct encounter with intensive forces is tied to modernist musical aesthetics only, and that the general approach in this first section is supposed to hold universally for all other kinds of music. This is not a claim I make, and I will return to a discussion of it below. The general approach in the following section can be delimited according to the validity of the example used (to what kind of musical experience they are deemed applicable). But even if I don't begin the argument by tying it to specific music, developing instead a generic description of musical experience, it should be stated that the tradition of European art music is both the context for Deleuze and Guattari's discussion of intensity in music and for Ernst Kurth's concept of energetics, and thus also an unthematized background for the following discussion.

3.1 Music and the Synthesis of Time

Deleuze portrays an encounter with intensive difference as that which can raise sensibility to a disjointed and transcendent exercise. This is an encounter with intensity independent of the sensible qualities, figures and extensities in which it is otherwise enveloped. Intensity, as the being *of* the sensible, is thus that which constitutes sensibility and is imperceptible from the point of view of an empirical exercise of the faculties. Intensity is present in all sensation, but for it to be apprehended as such – in itself and not as the intensity of qualities – sensation must be released from the other faculties. There is thus a distinction to be made between intensity in its enveloped and covered state and intensity *in itself*, or as difference in its free and untamed state in one of Deleuze's formulations.

In the following, I develop the concept of intensity with regard to music to approach this distinction. As noted in the previous chapter, the sub-representative syntheses of time are the actualization of intensive differences. The virtual is actualized through intensive differences that cancel themselves in the production of qualities in extensity, and this takes place through the two nested sub-representative syntheses of time. The question then becomes how we can understand music as bringing us into contact with this differential and intensive process. To reach this understanding, I begin by discussing how music can be understood as an imaginative contraction of time that situates us on the threshold of the sub-representative synthesis.

The following quotation from Merleau-Ponty can serve as point of departure:

The melody gives us a particular consciousness of time. We think naturally that the past secretes the future ahead of it. But this notion of time is refuted by the melody. At the moment when the melody begins, the last note is there, in its own manner. In a melody, a reciprocal influence between the first and the last note takes place, and we have to say that the first note is possible only because of the last, and vice versa. (Merleau-Ponty, 2003, p. 174)

Merleau-Ponty thus claims that a different time-consciousness is at work in musical experience, distinct from how we usually understand time. Generally, one could say that a melody consists of a sequence of tones, following each other in succession. This is chronological time: each tone is a present which is replaced by a new present when the next tone sounds, such that, as Merleau-Ponty puts it, the past secretes the future. However, do we really listen to music in this way? When we hear a tone, the next one and the previous ones are also present, not as a sensible impression but as a feeling for where the tone comes from and where it is going. There is a feeling immanent to the perception of the melody which makes it dynamic and plastic: one senses the tones expressing a tendency and movement such that each new tone is not only a new instant, but the (actualized) future dimension of the previous tone and the actualizing past of the future tone which will sound in the next moment. That is, the melody is a continuous contraction of past and future into an ever-growing present.

Perception and feeling are always in the now; they are always present states. However, the nature of this presence is dependent on the contraction of the past and future which constitute it. When we listen to music, the preservation of the past and anticipation of the future is part of the actual listening itself – it constitutes the experience of the ever-changing musical now. It is, to use Deleuze's picture of the imaginative faculty, like a sensitive plate that contracts, preserving the past and anticipating the future, feeling what is to come and what has already happened as *constitutive* for the actual sound. As such, past and future are dimensions of the

present: the present is neither a memory of the past nor an imagined future. Such active cognitive syntheses would direct us away from the actual present. The imaginative faculty which operates this contraction is part of the sub-representative synthesis of time according to Deleuze:

This is by no means a memory, nor indeed an operation of the understanding: contraction is not a matter of reflection. Properly speaking, it forms a synthesis of time. (Deleuze, 1994, p. 70)

A melody gives us a powerful example of how past and future are contracted into an ever-changing present. Thus, through the example of a melody, listening can be understood as an imaginative contraction, and, according to Deleuze, this contraction is an originary constitution of time:

Time is constituted only in the originary synthesis which operates on the repetition of instants. This synthesis contracts the successive independent instants into one another, thereby constituting the lived, or living, present. It is in this present that time is deployed. (Deleuze, 1994, p. 70)

This is the first sub-representative passive synthesis of time presented in the previous chapter. It is the synthesis of a passive and material subject that contracts instants that would otherwise no more give birth to time than cause it to disappear as the ‘constantly aborted moment of birth’ (Deleuze, 1994, p. 70). The living present *is* this event of contraction, and in listening to music – as exemplified above – we sense this intensive event. As such, one can understand how music can bring the listener in touch with the living present underneath the active syntheses of the mind.

Contraction is a dynamic concept, referring to the constitution of time as a *living* present that is continually ‘moving’. When Deleuze says that the past and future are dimensions of the present, these dimensions must be grasped as forces, as part of the intensive movement of the living present. This experience of intensive movement in music is captured in the musicologist Ernst Kurth’s notion of energetics. By making this experience the centre of his focus, he analyses structures in relation to a concept of music as forces, waves and movement. In his *Musikpsychologie*, Kurth points to this dimension as something more than purely audible sounds:

Out of the depth of the life-energy there emerge different specific expressions of forces of a bodily as well as spiritual kind. One of these and perhaps the strangest – at least the richest of the specific appearances – is the energy of movement in which the musical experience and imagination releases itself, and which expresses

itself in various forms of tension. In it lives the basic feeling of work, of a 'doing'. Its most obvious form is encountered in any melodic phrase, as a power running through it. It is an energy that drives the train of tones in its individual form and thus works through each of its tones; not less important is that one cognizes it as the force running between the tones, not as a connection given after their completion, but as the foundational [tragende] unity. (Kurth, 1990, pp. 76–77)

The 'energetics' of music, its 'force', 'psychic movement' or 'work', circumscribes a reality of flow which, for Kurth, is a unifying formative power of musical configurations. Kurth points to this when he stresses that the unity or wholeness of a melody is not derived from its tones, but rather that there is an 'original unity' out of which the tones are 'released' (Kurth, 1990, p. 78). The unity of a melody is 'a continuum of tone-movement rather than a sum of tones' (Kurth, 1990, p. 82). In other words, the unity is the *movement*, not a represented unity, which means a process of differentiation gives rise to a moving contour, a line, a unity. Kurth writes that the 'most essential aspect of melody is mobility ... The primary elements of melody are the tone and the sensation of motion' (Rothfarb, 1988, p. 8). This energy or movement streams not only through the tones but also between them, as can be experienced in the pauses of music, which are not empty but often an especially intense and active psychic movement. Essentially – musically – this motion is continuous and not compiled. Each tone is a body that contracts and synthesizes movement to the extent that it is itself contracted and synthesized. This energetic level, the work or forces that are experienced as psychic motion, is for Kurth the 'inside' of music.

Following the above considerations, one can say that the experience of a melody is the experience of intensive movement running through successive tones. Kurth describes this movement evocatively, arguing for a principal distinction between sensible impressions and the energetic dimension. If the first is discontinuous, the second is continuous, running *through* the impressions, tones and silences. If we consider this experience of intensive energetic movement in its dependence on the contraction of the immediate past and future, as Deleuze describes the working of the imaginative faculty, then we can connect Kurth's descriptive account with Deleuze's first synthesis of time. The difference between the elements of experience, the different tones and their quality, are external differences contracted from the intensive difference that is each tone in itself. In this way, we can understand the melodic experience as an imaginative contraction that gives us an experience of intensive movement running through the sensible qualities. This intensive movement is naturally tied to the representation of the melody. As such, it is a contraction of the imagination that binds sensations into figures and objects of perception. The experience of a musical formation such as a melody can bring us near the domain of intensity behind movement, but it remains a covered intensity, a qualitative experience of 'figures' such as themes and melodic contours.

3.1.1 Daniel Stern and Vitality Forms

Melody is naturally only one possible element in musical experience and was used above to discuss the notion of imaginative synthesis and intensity. To further develop the notion of intensity in musical experience, we can utilize the concept of vitality forms as developed by Daniel Stern.

In his book *Forms of Vitality*, Daniel Stern outlines the concept of vitality forms as the vital formation of any content of experience (Stern, 2010). Vitality forms are an aspect of experience to which Stern devoted much of his work and which he approached under the various conceptualizations of “vitality affects,” “temporal feeling shapes,” “temporal feeling contours,” “proto-narrative envelopes,” [and] “vitality contours” (Stern, 2010, p. 17). All these concepts approach the same phenomenon: that fundamental experience of aliveness ‘hidden in plain view’ (Stern, 2010, p. 4), whose basic elements are time and intensity. All the terms above are included within the broader concept of ‘dynamic forms of vitality’ (Stern, 2010, p. 17).

To give a sense of vitality affects and their form, Stern provides a long list of words and the following reflection:

Exploding, swelling, forceful, rushing, relaxing, gliding, surging, bursting, powerful, pulsing, gentle, accelerating, fading, pushing, floating, halting. ... Most of the words are adverbs or adjectives. The items in it are not emotions. They are not motivational states. They are not pure perceptions. They are not sensations in the strict sense, as they have no modality. They are not direct cognitions in any usual sense. They fall in between all the cracks. They are the felt experience of force – in movement – with a temporal contour, and a sense of aliveness, of going somewhere. They do not belong to any particular content. They are more form than content. They concern the ‘How’, the manner, and the style, not the ‘What’ or the ‘Why’. (Stern, 2010, p. 8)

Already, we can see how vitality is an almost imperceptible dimension of experience, despite occurring in plain sight. As a form of amodal sensation, vitality affects occupy a limit, stretching into the field of the pre-personal. Consider how a thought, emotion or impulse appears: as an insight or intuition in the blink of an eye or as a gradual dawning; as a shock-like feeling of fright or the pulsating ebb and flow of joyful satisfaction. These are intensive formations that emerge in experience as forms of vitality, permeating the content of what is experienced and flowing in and across the constituted field of subjective consciousness. As such, they are not to be identified with the content of experience, which is the personal ‘possession’ of a

subject. Vitality affects and their forms should not be confused with specific sensations and emotions, although they are necessarily entangled.

Vitality forms have content, and the content can be anything; there are vitality forms of thinking, emotions and actions, as well as all other mental and physical experiences. A vitality form is the time/intensity modulation of an expression, the behaviour of content:

The content can be an emotion or shifts in emotion, a train of thoughts, physical or mental movements, a memory, a phantasy, a means-end action, a sequence of dance steps, or a shot in a film. The vitality dynamic gives the content its form as a dynamic experience. The content, by themselves, need not conform to any particular dynamic experience. Anger can appear on the scene explosively, or build progressively, or arrive sneakily, or coldly, and so on. So could happiness and its smile. (Stern, 2010, p. 23)

Stern outlines the temporal arts of music, dance, theatre and cinema as ‘dynamics of experience [where] vitality forms are the working experiential units’ (Stern, 2010, p. 75). Regarding music, Stern enumerates ‘some of the codes that music uses to mark dynamic forms and thus create vitality forms’ (Stern, 2010, p. 82). These are taken mostly from the dynamic register of loudness and softness and speed and slowness, indicating how these parameters modulate intensity and create vitality forms. While art gives rise to an experience of these vitality forms disentangled from everyday life – amplified, repeated and refined – it also ‘serve[s] as a good example of what happens in daily interactions between two people’ (Stern, 2010, p. 75).

Although Stern primarily associates vitality forms with the parameters of dynamics, tempo and rhythm, this vital dimension naturally permeates all musical elements. The experience of a single tone has a dynamic profile and is in itself a vitality form. Considering tone as a basic entity in music, we can see how its extension into the musical parameters creates different vitality forms. A tone, as sound with consistency and continuity, has a pitch, duration, attack and dynamic profile. These dimensions can be related to musical parameters or other elements. Pitch is organized as scales, giving rise to the melodic and harmonic dimensions. Duration becomes rhythm, which together with attack, dynamics and repetition, gives rise to the metric schemes of a regular or irregular beat. These are the elementary dimensions of music which are clothed in the colour and texture of timbre, the fourth dimension of a tone’s consistency. Within the configuration of these parameters extracted from the dimensions of the tone (pitch, duration, attack/dynamics and timbre), a whole world of intensive differences plays out. Melodic, harmonic, rhythmic, metric and dynamic sonorous bodies and architectures are created as complex vitality forms.

In this way, we can see how the dimensions of a tone are extended as musical elements, and these elements develop and give 'form' to musical intensities. Based on the elements of its sonorous body, music creates configurations of intensity and can itself be conceived of as a body of intensity.

The outline of the above concepts and observations seek to provide a more robust sense of the notion of intensity as it pertains to musical experience. However, this account still remains within a phenomenological and psychological horizon. It does not yet describe an encounter with intensity as such – intensity as a free and untamed difference not dominated by the form of recognition. In general, musical forms and sonic relations remain experiences of intensity mediated through *qualities*. Deleuze is clear about this distinction: intensity is cancelled in and as the qualities of experience (Deleuze, 1994, p. 223).

According to the above, music, with its inherently intense experience of time, draws us towards a threshold in consciousness. The continuous formation of musical matter places us in the closest possible proximity to the sub-representative synthesis of the living now, while simultaneously pushing us forward on waves surging forth from it. It pushes and pulls, draws and resists at the same time. The process of forming representations, while continuing its functioning of ordering, relating and recognizing structures, is drawn towards the synthesis of the present in the imaginative contraction of musical intensities. Inversely, the sub-representative synthesis of time from which representation emerges seeps into representational consciousness. With the represented present of consciousness coming in the closest possible proximity to the sub-representative living present, each moment splits off in different directions: the former towards a structural overview and the latter towards a living, visceral intensity. These are one and the same, yet also two different poles in the constitution of musical experience, held in a reciprocal relationship: feeling the intensity of movements traversing the depth of the organism, while simultaneously identifying and forming representations of the themes and motives. Music brings us an imaginative contraction of time, and normal, representational consciousness is thereby brought into proximity with the sub-representative synthesis of the present. Thus, the question remains: can music give access to intensity *in itself* and, at the heart of the first sub-representative synthesis of time, also make us discover the second passive synthesis of the virtual? This would mean going beyond the imaginative contractions considered so far and beyond a psychological and phenomenological consciousness. To consider music part of the operation of transcendental empiricism, this would be an essential criterion: to create a field of intensity that harnesses these forces such that they can be apprehended in themselves, as 'a bit of Time in the pure state . . . , a grain of absolute Intensity' (Deleuze & Guattari, 2007, pp. 95–96). An encounter with intensive difference in the field of perception would need to raise sensibility to its transcendent exercise and open it to the sub-representative syntheses. Following the logic of these syntheses, sensation would become internal to the difference

that drives actualization and in which the second passive synthesis opens to the pure past, the virtuality in which time is co-existence. Thus, musical experience would be related to the encounter with intensity that raises sensibility to its disjointed and transcendent exercise in the operation of transcendental empiricism.

Before I discuss the further implications of this possibility, I turn to Deleuze and Guattari's claim that the music of the Modern Age is the music in which this problem of intensity comes to the fore.

3.2 Aesthetics of Intensity Between History and Metaphysics

In *A Thousand Plateaus*, Deleuze and Guattari place the problem of how to harness intensive forces and create a direct encounter with intensity in an epochal reading of music history. They thus relate the epistemological and metaphysical question of transcendental empiricism to historical and aesthetic considerations. The question of how to generate an intensive difference that can disjoin the faculties is brought into proximity with aesthetics where, as Deleuze says in *Difference and Repetition*, aesthetics now reconciles the two meanings that Kant treated separately. The conditions of sensibility and the theory of beauty come together in a conception of aesthetic experience belonging to transcendental empiricism.

In their epochal reading of music history, Deleuze and Guattari centre their discussion around the concepts of form and matter and how the relationship between these concepts changes from its classical configuration in Classicism to the Romantic era and the Modern Age. While their treatment of these epochs seems to be based on a traditional understanding of recent European music history, the notion of the Modern Age is elusive. Based on the examples that Deleuze and Guattari provide, the Modern Age corresponds loosely to the musicological term 'modernism', which roughly signifies music of the twentieth century that values 'belief in musical progress or in the principle of innovation' (Campbell, 2010, p. 37).¹⁴ However, as

¹⁴ Another definition of modernism is given in *Transformations of Musical Modernism* in which Erling E. Guldbrandsen and Julian Johnson consider what musical modernism might signify. They ask whether musical modernism signifies an epoch, a style, a progressive and prophetic kind of music, or an irrelevant and outdated post-war movement. Guldbrandsen and Johnson suggest neither of these options, rather viewing musical modernism as 'an attitude of musical practice – in composition, performance and listening – that involves an increased awareness of its own historical situation ... a heightened consciousness of the relations between present and past, between present and future and between continuity and discontinuity in the history of music; in brief, it provokes an acute awareness of the condition of historicity that has always been embedded in the present moment of musical experience' (Guldbrandsen & Johnson, 2015, pp. 1–2).

we will see, their qualification of this term is such that what determines whether something is of the Modern Age is the degree to which it can harness intensive forces. Ultimately, they state: 'If there is a modern age, it is, of course, the age of the cosmic' (Deleuze & Guattari, 2007, p. 342). This naturally begs the question of to what degree such a general principle is tied to a historical period and aesthetic orientation, as is implied by the epochal reading in *A Thousand Plateaus*. I will return to this question below.

The changes in the matter–form relationship that guide their reading of music history can be related to the epistemological question of perception and thus to aesthetics in its original sense of *aisthesis*, concerning the conditions of sensibility. What are the principles that give form to the matter of experience? In their view, the history of music is a movement from the Classical principle of identity where form governs matter to a Romantic notion of continuous variation between matter and form, and finally to the Modern Age. In the Modern Age, form is no longer necessary as a given category since the whole aesthetic question has now changed and centres on productive differences. The central concern is no longer form being imposed upon matter nor form and matter undergoing continuous variation and development. Instead, the problem in the Modern Age concerns how a musical material can harness forces and give rise to an experience of intensity:

The essential relation is no longer matters-forms (or substances-attributes); neither is it the continuous development of form and the continuous variation of matter. It is now a direct relation material-forces. A material is a molecularized matter, which must accordingly 'harness' forces; these forces are necessarily forces of the Cosmos. (Deleuze & Guattari, 2007, p. 342)

This seems to suggest that the musical material of twentieth-century Modernist composers creates music and musical experiences that differ from the music of the Classical and Romantic eras.

Not surprisingly, the central issue in this regard is the function of form as a principle of identity. In an essay called 'Occupy Without Counting: Boulez, Proust and Time', Deleuze remarks that 'tonal language restored a principle of specific identity', and an expansion of perception can be 'reached only if perception breaks with the identity to which memory binds it' (Deleuze, 2007, p. 301). Furthermore, in *A Thousand Plateaus*, Deleuze and Guattari explain Classicism as centred on a matter–substance relationship which imposes form upon matter and organizes this relationship according to the principles of a philosophy of identity:

Classicism refers to form–matter relation, or rather a form–substance relation (substance is precisely a matter endowed with form). Matter is organized by a succession of forms that are compartmentalized, centralized and hierarchized in relation to one another. (Deleuze & Guattari, 2007, p. 338)

According to the Classical hylomorphic scheme expressed here, form is imposed upon matter as a mould gives form to a purely passive matter. Deleuze and Guattari also characterize this mode of thought as applying ‘a code subduing the forces of chaos’ (Deleuze & Guattari, 2007, p. 340). In this Classical image of thought, there is a hierarchical disposition of forms; everything is endowed with form, and each form belongs to a higher form as well as encompasses a lower one. The principle of form thus spans everything down to an excluded formless residue which is matter as such, or chaos. This is why the form–matter relationship is actually a form–substance relationship; substance is matter already endowed with form. Pure matter falls outside intelligibility and escapes the principle of form. Deleuze’s claim that tonality imposed a principle of identity on music can be understood through this form–substance relationship. In the Classical image of music, a preformed sonic matter or ‘substance’ is the basis for composition: matter is ‘organized by a succession of forms that are compartmentalized, centralized and hierarchized in relation to one another’ (Deleuze & Guattari, 2007, p. 338). As a substance, the tone’s pitch becomes a melody and harmony, and the duration and attack create rhythm and metre. Sonic matter is thus already endowed with form, giving rise to the substance employed in compositions, that is, the melodic, harmonic and rhythmic configurations and developments we see in music history. This codification is a principle of identity that Deleuze sees embodied in Classical tonal music, and the relationship between this sonic matter and its configuration and unification in form thus constitutes the changing variable that Deleuze and Guattari chart from Classicism to Romanticism.

However, if music is to break ‘with the identity to which memory binds it’ so that it can effectuate an expansion of perception (Deleuze, 2007, p. 301), then musical material which resists identity and representation must be formed. This requires a break with the traditional and internalized forms of experience, what Deleuze and Guattari also call the clichés of perception (Deleuze & Guattari, 1996, p. 204). In this break with identity and memory, we can see a connection to the principle of a disjointed exercise of the faculties. To release perception from memory is to release it from pre-given structures and grids, to disjoin these faculties and make sensation stand on its own. Musical material which breaks with the principles of identity and form can be understood as relying on a technical procedure aimed at bringing about a disjointed exercise of the faculties. This seems to be what Deleuze and Guattari claim is Modernist music’s aesthetic aspiration:

This is the post-romantic turn: the essential is no longer in forms and matters, nor in themes, but in forces, densities, intensities ... Music molecularizes sonic matter and thereby becomes capable of harnessing nonsonorous forces such as Duration, Intensity. (Deleuze & Guattari, 2007, p. 343)

Several questions arise from Deleuze and Guattari's reading of music history. For example, considering that the operation of transcendental empiricism has an intimate connection with art and aesthetic experience, Deleuze and Guattari's reading of music history in *A Thousand Plateaus* invites the question of whether this connection is bound to any specific aesthetics or historical epoch. Is the encounter with intensive difference something that has a privileged relationship with – or is even bound to – Modernist aesthetics? If so, are they covertly importing a view on history that, against their explicit denial, may even be evolutionary? If the change from Classicism to Romanticism and the so-called Modern Age consists of a move from aesthetics founded upon identity and form to difference, is this not a form of progress in the sense of a gradual orientation towards the intensive and differential nature of the world expressed in Deleuze and Guattari's ontology?

In *Deleuze on Music, Painting, and the Arts*, Ronald Bogue presents Deleuze and Guattari's epochal reading of music history and notes that while their general approach to history is not one of categorization and linear development, they also 'recognize the usefulness of a periodization of musical styles and themes' (Bogue, 2003, p. 38). Thus, following Bogue, Deleuze and Guattari capitalize on a traditional understanding of music history which they take for granted as a valid and *useful* way of distinguishing between the various ways that music organizes the play between form and matter. The question then becomes what this usefulness really implies, though Bogue does not address this question. Rather, he writes that this (recent) history is also traversed by an '*antihistory* of becoming' (Bogue, 2003, p. 53). Thus, Deleuze and Guattari's approach to history is always double, and, therefore, there is no evolution inherent in their periodization. In *What is Philosophy?* Deleuze and Guattari argue that becoming does not belong to history but falls back into it (Deleuze & Guattari, 1996, p. 96). This would mean that the intensities of becoming are not bound to historical periodization but traverse chronological time as singular points.

This still returns us to the question of why the Modernist art contemporary of Deleuze and Guattari is equated with the notion of deterritorialization and a direct encounter with intensive forces. While Classical art subdues the forces of chaos by imposing form, Romantic art sees the relationship between form and matter as a reflection of forces. In their view, only in the Modern Age are forces 'grasped directly as forces' (Deleuze & Guattari, 2007, p. 346). If

history is traversed by an antihistory of becoming, why does this antihistory itself seem to come to the fore in the recent history of the twentieth century?

There appears to be a tension between assigning Modernist aesthetics a privileged role while also relativizing that role, and this comes out clearly in a statement Deleuze made in a lecture given at IRCAM:

We cannot determine a break [*coupure*] in this respect between classical music and modern music, and above all not with atonal or serial music; a musician makes material out of everything, and already classical music, under the pair matter/complex sonorous form, made the play of another pair occur, elaborated sonorous material/non-sonorous force. There is no break but rather a bubbling or seething [*bouillonnement*]; when, at the end of the 19th century, attempts were made at a generalized chromaticism or a chromaticism free of temperament ... music rendered more and more audible what had worked within it at all times: non-sonorous forces like Time, the organization of Time, silent intensities, rhythms of every nature. (Deleuze, 1978)

Classical music dominated by form and identity is also inhabited by the play of forces, and there is no break between this music and what Deleuze designates as Modern music. Nonetheless, Deleuze distinguishes between music in which this vital and intensive force occurs ‘under’ the form–matter dichotomy and Modernist music in which intensity is made audible as the non-sonorous force of time. What had been seething and bubbling underneath now comes to the surface. In the above excerpt, it is hard to escape a certain historical-aesthetic evaluation that would also have consequences for viewing history. Thus, however much Deleuze and Guattari deny that there is an evolutionary and progressive idea behind their presentation of music history, and however much Deleuze says that there is no break between Modern and Classical music, it is difficult to avoid the impression of a Modernist narrative of progression. As Edward Campbell notes in his study of Deleuze and music, Deleuze ultimately seems to be influenced by such a Modernist narrative:

It is perhaps a fault line in Deleuze’s work that his forcibly non-historical and overtly non-historicist philosophy seems in fact to endorse some kind of progressivist narrative in relation to the opening up of pitch space. (Campbell, 2013, p. 79)

The tension between a non-historicist metaphysical philosophy and a historically situated aesthetics and ethics has been accentuated by Michael Gallope, who reads Deleuze and Guattari as having two distinct philosophies of music (Gallope, 2010). Gallope traces this back

to Deleuze's philosophy of time, in which he finds an equivocation between a metaphysics of life and an ethical prescription for *a* life, asking whether the three syntheses of time are 'just what time is, or do they not reflect Deleuze's prescriptive passion for the affirmation of a true event, which only a life can make?' (Gallope, 2010, p. 84). Whereas Deleuze's metaphysics affirms all life unequivocally, what is at stake in the third synthesis of time is how to reorient oneself towards the intensive and virtual, Gallope writes. This, he claims, has consequences for Deleuze and Guattari's philosophy of music and their treatment of music in *Of the Refrain*. On the one hand, we find metaphysics in which music is simply thought of as life. The becoming and individuation of life is thought along a musical model such that, as Gallope writes, 'Music is life; life is music' (Gallope, 2010, p. 89). Against this background, Gallope writes that one could expect an unreserved affirmation of *all* music; but, he continues, this is not the case. Deleuze and Guattari's ethico-aesthetic account of music includes certain criteria. As Gallope points out, in their philosophy, not all music functions as a means to reorient oneself towards life in its unmediated flow. Those that function for Deleuze and Guattari seem to correspond to a large extent with 'an austere modernist poetics' (Gallope, 2010, p. 90).

Gallope further writes that despite the weight Deleuze and Guattari place on this function of musical aesthetics, they are never very specific in their treatment of it. The reason for this, according to Gallope, is that any specific claim would lead them into the delicate business of defending the role of a work as a 'legitimate carrier of the virtual' (Gallope, 2010, p. 101). Over-specificity on this point would place too much weight on specific works as mediators and thus introduce a dialectics into their otherwise affirmative metaphysical stance. Gallope concludes with the following critical questions:

How can the actuality of repeatable and knowable musical form (technical procedures) bear the infinitely repeatable magic of rendering 'sonorous [virtual] forces that are not themselves sonorous'? Following the more generous affirmation of the metaphysical philosophy of music, could not the resources for such a virtual orientation towards music be available at every point of living itself? If nothing, strictly speaking, stops the 'properly original' powers of the virtual, why would we need to back up an argument about an immanent philosophy of music with particular examples based in little more than the historically bound aesthetic priorities of a modernist composer? (Gallope, 2010, p. 101)

While I do not subscribe to Gallope's critique, I find the accentuation of the problem regarding history and metaphysics in Deleuze and Guattari's philosophy important. The underlying problem at stake here can perhaps be summed up in the question of how to think about the event *both* in its relation to history *and* as the anti-history of becoming. Without 'solving'

this problematic tension – as I believe the whole of Deleuze and Guattari’s philosophical apparatus would need to be mobilized for that project – I find the way Gallope injects the distinction between metaphysical description and ethical prescription to be exaggerated and misleading. The formulations ‘legitimate carrier of the virtual’ and ‘bear the infinitely repeatable magic of rendering sonorous forces’ both seem to testify to a reification of the concept of the actual rather than a processual understanding, wherein the actual is a continuous process of actualization. Gallope here seems to read an opposition into Deleuze and Guattari, an opposition that is not there in any such dialectical manner but is rather a *polarity* of enveloping forces.

It appears to simply be a part of Deleuze and Guattari’s metaphysics that life has within itself a polarity of force; the tendency to form and identity, to the folding of life into organic form and striation, as well as virtual and intensive difference. Brent Adkins notes in his discussion of *A Thousand Plateaus* that Deleuze and Guattari ‘propose assemblages with tendencies toward both stasis and change that are thought hylozoically on an ontological continuum’ (Adkins, 2015, p. 98).¹⁵ In the language of *A Thousand Plateaus*, a striated space-time and a smooth space-time constantly envelop each other and elicit form and becoming, and the life of an individual comes into being through a folding of these forces. To acquire an unmediated apprehension of life or a direct encounter with intensive forces, a life that is enfolded and bound to organic conditions must acquire the disjointed and transcendent exercise of organs and counter the flow of life as conditioned by the organism. Covered intensities are that which we perceive and relate to as the qualities of experience. While it could certainly be said that the resources for the reorientation towards the virtual are available at every point of life in principle, the conditions for activating such resources must be met. Aesthetic techniques are methods to experiment with and achieve this activation. At the same time, these techniques concern different ways of expressing these forces of life and form, difference and identity. Works of art will thus tend towards one pole or the other. Whereas tonal music, according to Deleuze, installs a certain principle of identity in the sonic flow, the music of the Modern Age foregrounds difference and the proliferation of intensive forces.

If one looks at this notion principally and not historically, the problem Gallope constructs between metaphysics and ethico-aesthetic prescriptions can be untangled. The logic of a breakdown or catastrophe in the given and a release of forces to be captured for new creation is a constant point in Deleuze and Guattari’s aesthetics and corresponds simply to the

15 Adkins contrasts hylozoism with hylomorphism. Hylomorphism is the view that the intelligible and the sensible are two ontologically distinct registers that are related to each other via the concepts of form and content. Hylozoism is a term coined by Ralph Cudworth to describe any position which considers matter to be alive, opposing the dualism of hylomorphism. This is the view taken by Deleuze and Guattari, affirming a continuity between the intelligible and sensible and thus also a univocity of being. See Adkins (2015, pp. 1–3).

principle of a disjointed exercise, which is precisely the principle that yields a 'reorientation to the virtual'. Stephen Zepke writes that such a 'catastrophe rendered by confronting chaos (absolute deterritorialization) is the necessary condition of any true creation, of any sensation' (Zepke, 2005, p. 176). As such, this 'modernism' is not a chronological category and can be found throughout history as singular points or anti-histories of becoming.

Furthermore, another perspective that Gallope's classical and work-based critique misses is that, regarding the problem of an intensive encounter, *all* conditions of a situation count, and no single element can be said to 'carry' the 'magic' of the virtual. This is clear in *A Thousand Plateaus* when Deleuze and Guattari write that the refrain 'has two poles. These poles hinge not only on an intrinsic quality but also on a state of force on the part of the listener' (Deleuze & Guattari, 2007, p. 349). In other words, the refrain as the process of deterritorializing and opening towards the cosmos depends not only on the techniques and qualities of a work but also on the subjective pole of the listener. Naomi Waltham-Smith highlights this point in a different context, applying Deleuze and Guattari's notion of the refrain to an analysis and philosophical reflection on the music of Haydn, Mozart and Beethoven. Waltham-Smith writes that it 'is significant that, throughout this passage, music's deterritorialization is entrusted to the listener' (Waltham-Smith, 2017, p. 107). Thus, the question of how music can bring about intensive forces is relative to more than the aesthetic technique of the actual work. It could even be questioned whether the listener's state of intensity could be capable of conditioning the situation to the degree that *any* music or sound could act as the point of reorientation, to use Gallope's expression.

However, a question remains: what about the sense of a historical narrative cropping up in their epochal reading of music and aesthetics, as identified by Campbell and others? This does point to a problematic tension between metaphysics and history in Deleuze and Guattari's philosophy. One could imagine that the tendencies towards the smooth and the striated, difference and identity, and force and form pulse throughout history and that the small segment of time which they use to portray the *Refrain* is just one such tendency (with conflicting tendencies and forces running within it at all times). As such, the designation of the Modern Age as opening to the cosmic would not be extended to imply a universalizing idea of progress in a linear historical development. This is perhaps not a very convincing solution, as there seems to be little evidence that this is their idea. Nonetheless, one can read their diagnosis in a relative way. While what they call the Modern Age harbours a tendency to seek out the intensive domain and put music and aesthetic experience in the service of the cosmic virtual continuum behind sound and sensations, this does not preclude other music from having the same potentiality. Perhaps even more importantly, the encounter with intensity cannot be approached as a 'given', as if it belongs to a self-contained functioning of a work. Rather,

it must be approached as an event in which the work and the listener enter a becoming that makes both poles converge as 'difference'. What can be identified are the conditions, aesthetic and compositional techniques and ideas related to this problem.

3.3 A Direct Encounter with Intensity

Continuing the question of how music can create a direct encounter with intensive forces and open the virtuality of time, in this section, I expand upon one concept concerning Deleuze and Guattari's general claim that music of the Modern Age 'molecularizes sonic matter and thereby becomes capable of harnessing nonsonorous forces' (Deleuze & Guattari, 2007, p. 342). The idea of a molecularization of sonic matter is returned to several times and relates to musicological aspects such as temperament, tonality, atonality and modality, as well as all sorts of other operations that open up new dimensions of sound and instrumental practice. In his book *Music After Deleuze*, Edward Campbell writes that the molecular

irrigates musical modernity, from the manipulation of musical motifs and cells in Beethoven, Brahms, Schoenberg and others; in the pointillism that begins with Webern and that marks the music of Boulez and Stockhausen around 1951–52; in the pulverizing of musical material demanded by Varèse and the expectation that composers must refashion musical material. We have encountered Lachenmann's molecularizing of sound, but we are equally in the land of the molecular with Stockhausen's exploration of the inner life of a sound in *Stimmung* and the later experiments of the spectral composers, particularly Grisey's 'instrumental synthesis' with its generation of musical material from the destructuring of a musical sound into its harmonic and inharmonic components. (Campbell, 2013, pp. 160–161)

What does the concept of a molecularization of musical material imply? This question is central in regarding music as a part of transcendental empiricism. Without exploring this question, one arguably risks reducing intensive and virtual difference to the actual and losing sight of the singular conception of difference that animates Deleuze and Guattari's philosophical aesthetics. The central claim is that the molecularization of musical matter can make 'audible nonsonorous forces of the cosmos that have always agitated music – a bit of Time in the pure state (Proust), a grain of absolute Intensity' (Deleuze & Guattari, 2007, p. 96). What do time in its pure state and absolute intensity entail in this musical-aesthetic context? To approach this question, I consider the concept of a molecular material in relation to its epistemological counterpart: a molecularization of perception, or, which is the same, microperception.

A molecularized sonic matter could be said to address itself – or even work upon – listening in a molecularizing way. Thought of in this way, the question of what a direct encounter with intensive forces implies belongs to the question of what a molecularization of perception entails. In the next section, I consider this question in relation to temporal synthesis and the notion of imaginative contraction developed above. On this basis, the idea of music as a process of harnessing cosmic forces and opening to intensive difference and the virtual may become more concrete.

3.3.1 From Imaginative Contraction to Molecularized Perception

How can we picture this molecularized perception corresponding to a molecularized sonic matter? Above, the example of a melody was used to thematize the experience of intensity as imaginative contraction. If we take this account as the point of departure, we can contrast the move to a molecularized perception or microperception, paralleling the distinction between covered and immediate intensities.

When we listen to music, we experience an imaginative contraction of time in and as the everchanging musical now. For this content to appear as it does, the imagination contracts the immediate past and future into the present. The syntheses of time we encounter in the flow of a piece of music take place in the imagination, and this imaginative experience of time naturally depends on the immediate sensations of sound – the tones that are themselves contractions. The experience of musical figures and forms in formation is contained within or written upon a fundamental and underlying sub-representative synthesis of time.

Sense-perceptions normally appear ready-made, already formed and independent of conscious experience, and this is the substratum upon which imaginative contraction works. Beneath these given elements of experience lies a world of minute differences. We saw in the previous chapter how these minute differences and elementary contractions constitute the organism and its senses in Deleuze's ontology, such that the ontological substrate of sensations must be pictured underneath the flow of sensations in perceptual experience. These sensations are like sedimentations and coagulations of the differential play of a myriad of microperceptions. On this level, sensation is no longer 'subjective' but a vital contraction of living matter. Among evanescent and unconscious microperceptions, differential relations draw forth what we perceive. Deleuze writes that conscious perception is created when two or more 'heterogeneous parts enter into a differential relation that determines a singularity' (Deleuze, 2006, p. 100), explicating this point by way of an example taken from Leibniz. When we listen to the waves in the sea, what we hear is really an infinite number of smaller waves that together compose the 'one' that we hear. In this way, Leibniz explains conscious perception as coming forth from

unconscious microperceptions. These microperceptions are not relatable to the discontinuities between represented objects and subjects in space and time, but belong to a continuity, a plane of immanence. Beyond a differential threshold, perception can no longer be understood according to the subject–object model. This is ‘where’ one could say the organism sits on the BwO. By explaining macroperception as a result of infinite molecular perceptions, perception is understood on a continuum of the unconscious forces that produce it, and consciousness is likened to the perception of a wave which in reality is an infinite multitude of minute waves. In this picture, perception surges out of the sub-representative domain, an intensive site where difference is productive, driving the process of individuation and explicating qualitative experience.

It was argued above that music can bring us in proximity to the sub-representative domain. As a conscious experience, the synthesis takes place in the imagination as a contraction of time into imaginative structures. Below the threshold of consciousness, microperceptions of larval subjects constitute experience. At each moment, we live this split between sub-representative intensive movement and its explication and development as figures and forms, themes and motives. Music can give us a ‘living representation’ in closest possible proximity to the sub-representative present surging out of this molecular plane. It still has the form of representation, but one which erases itself as it is inscribed. At the very same split moment of time, intensity works intensively, as the pressures, expansions, contractions and relaxing movements figuring at the limit, in the passing of the present. Ernst Kurth’s concept of energetics and Daniel Stern’s concept of vitality forms both point to this liminal perception. Intensive difference animates the structures and forms, the representational elements of musical experience. Music brings us to the cusp of becoming; it bends towards the plane of immanence on which each body and mind is composed of speed and slowness. In his book *Spinoza: Practical Philosophy*, Deleuze suggests that music, silence and sounds belong to a plane of immanence where there ‘is no longer a form, but only relations of velocity between infinitesimal particles of an unformed material. There is no longer a subject, but only individuating affective states of an anonymous force’ (Deleuze, 1988, p. 128). Even if music belongs to this plane, how will it come to be perceived and apprehended *as such*? This is the central question concerning music as part of transcendental empiricism. To what degree can music really open us to this plane?

The molecularization of sonic matter that Deleuze and Guattari claim we find in music of the Modern Age can perhaps be said to approach this plane of immanence more intensely than Classical or Romantic music. What would be the nature of this intensification? Epistemologically speaking, it would mean a move from the contraction of time in the imagination towards the contractile process within perception itself, entering the differential play of microperceptions. Consequently, this movement would also mean going beyond the liminal proximity to the living now. Rather than occupying the very limit of the first sub-representative synthesis of

time, a listening which attains the molecular would be situated at the very heart of the first synthesis of time and potentially uncover the second synthesis of the pure past. Following the logic of the sub-representative syntheses presented in the previous chapter, the first synthesis of the present is grounded in the actualization of the virtual. Thus, music capable of molecularizing perception would open an intensive field of difference, a whole differential play of forces and time in its virtual state, as the co-existence of the pure past. Ultimately, this is the impossible possibility that the question of a direct encounter with intensity is about: the possibility of connecting listening with intensive forces no longer contained in a form or (normal) perception and opening life in its immediacy as free and untamed difference. Music and philosophy share this same ‘impossible’ task, Deleuze claims:

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. In philosophy it's no longer a matter of an absolute thought such as classical philosophy wanted to embody, but rather an impossible thought, that is to say the elaboration of a material that renders thinkable those forces that are not thinkable by themselves. (Deleuze, 1978)

3.3.2 Music, Aesthetic Experience and Transcendental Empiricism

What happens to ‘music’ and its experience along this trajectory? What would one hear in a molecularized listening? Would this entail leaving actual music behind? It could be argued that actual music has been relegated to a means to an end in this system, to emptying itself for the sake of a virtual and intensive ‘music’ that knows no bounds. Does one not risk emptying the concept and practice of music for a purely philosophical-speculative idea by claiming that actual music can emit intensive forces that become a line of flight, an intensive field of difference where time is no longer mediated? In short, is this a musical philosophy that seeks to leap ‘out of this world’, as the critic Peter Hallward claims Deleuze’s philosophy does as a whole (Hallward, 2006)?

While one could claim that music may go beyond itself as historical and situated actuality and, as such, at some point perhaps become unrecognizable, rhetorical constructions such as ‘leaping out of’ or ‘leaving actuality behind’ would be based on assumptions that Deleuze and Guattari’s ontology is fundamentally wrong. But if the world aligns with this ontology, then the field of intensive forces is naturally not ‘outside’ anything. The question is not of leaving the actual behind or devaluating it in relation to the concept of the virtual, but of seeing the continuity between them, the virtual–intensive–actual circuit that conditions real experience.

From Deleuze and Guattari's point of view, images of thought can inhibit one from taking part in the intensive dimension of the world, and, as such, it is rather the listener who is 'outside'.

The first part of this chapter has portrayed musical experience as intensity in its covered state, felt in the closest proximity to the sub-representative. As the minute contractions of time that each sonic event or (playing) action is an expression of, music comes from and embodies intensive differences. As such, it also bends us towards this plane of immanence; it brings us closer to the sub-representative domain where intensive differences and virtual ideas drive actualization. Nonetheless, there will remain a differential threshold separating the content of perception from the immediate sensation of time *as* force. The very nature of perceptual experience seems to radically change to the degree this differential threshold could be crossed.

Music would seem to resonate with and open a virtuality that exceeds it, making both the function and identity of music and musical experience undergo radical metamorphoses. However, this is arguably an Outside *of* music. Such metamorphoses would be a logical consequence of the aesthetics of Deleuze and Guattari. Art is experimentation with the conditions of the sensible, and if the work(ing) of art can reveal these intensive and virtual forces, art becomes genuine creation. In this sense, music and art function as part of Deleuze's transcendental empiricism not as 'objects' of enquiry, but as intensive encounters and processes that spur thought and reconfigure experience. Aesthetics thus understood becomes, as Éric Alliez writes, *first-philosophy*: 'The Aesthetic is therefore the necessary form of "first-philosophy" as heterogenesis of the becoming world' (Alliez, 1997, p. 85). As an experimental site for heterogenesis, aesthetic experience becomes the site of an experimental realization of the immanence of the intelligible and sensible in and as intensive differences. But this can only be understood as a creation. Thus understood, the nature and function of aesthetic experience is to open to life itself as intensive reality. It is a site of experimental becoming and has, as such, an intimate relation to the creation of transcendental empiricism where transcendental empiricism must itself be understood as a properly creative enterprise.

If the philosophical domain of this enterprise is the creation of concepts, art creates percepts and affects as new ways of perceiving and feeling. As presented in the previous chapter, Deleuze and Guattari qualify the thinking that takes place in aesthetic experience as a thinking in terms of percepts and affects. The above discussion of a transition from imaginative contraction to the molecularization of perception focused on the percept element, the creation of new ways of perceiving through a molecularization of perception. However, aesthetic thought also has an 'affect' pole. What about this element; how to understand the affective dimension of aesthetic experience as part of a creative becoming?

In his *Art as Abstract Machine*, Stephen Zepke explains Guattari's account of this as an 'onto-aesthetic dimension active in the experience of the work of art' (Zepke, 2005, p. 152). Aesthetic experience begins in a 'sensible affect' – for Deleuze and Guattari, the domain of art is always the sensible, or more precisely sensation (and not the concept). The sensible affect is simply the affect that belongs to sensory experience, but art makes this into what Guattari terms a 'problematic affect'. As such, the sensory experience becomes invested with and flooded by affective connections and associations, 'introducing all sorts of temporal and emotional flows' (Zepke, 2005, p. 152). For Guattari, there are two important things to note about the concepts of sensible and problematic affects. First, as has already been pointed out, affect is not the same as emotion or affection, which determine a personal subjective state. Rather, affect is 'essentially a pre-personal category, establishing itself "before" the circumscription of identities, and manifesting itself by transfers that are as unlocalizable from the point of view of their origin as from that of their destination' (Guattari, 2013, p. 203). Affect has its own ontological register and is not reducible to the subject (psychology) or object (biology). Second, with regard to the distinction between sensible and problematic affect, Guattari writes that the complex, 'multiheaded' and 'implicated' problematic affect is not based on the simpler sensible affect situated in the perceptible given. Rather, Guattari writes,

my idea is that problematic affects are the basis of sensible affects and not the other way round. Here the complex ceases to be based on the simple (as in those conceptions prevailing in scientific paradigms), so as to organize synchronic distributions and diachronic becomings as its own economy allows. (Guattari, 2013, p. 206)

Similar to how ordinary perceptions emerge from an infinite complex plane of microperceptions, Guattari suggests that the sensible affect is based on the complexities of an infinite network of affects. Both the percept and the problematic affect belong to the pre-individual field of intensity. The life of the soul surges out of a pre-personal domain of affects that are tied to neither objects nor subjects, but which are individuated as *subjectivation* in a continual passing between sensible and problematic affects. As Zepke points out, this implies that we are in the ethical situation which characterizes Guattari's ethico-aesthetic paradigm. In Guattari's words, it puts us before 'a crucial ethical choice: either we objectify, we reify, we "scientitize" subjectivity, or else we attempt to seize it in its dimension of processual creativity' (Guattari, 1996, p. 198). We have to choose between reification or opening subjectivity towards alterity, and the domain of art opens a particularly intensive site of becoming where the process of subjectivation can be experimentally lived and explored.

Zepke writes that to regard art in terms of such becoming 'means transvaluing the subject and object co-ordinates given by traditional aesthetics into "vectors of partial subjectivity," and

deterritorialising the fixed subject onto the plane of subjectivation' (Zepke, 2005, p. 153). If traditional aesthetics moves between analysis of the work of art and aesthetic experience as its subjective experience, the intensive aesthetic of Deleuze and Guattari regard both these poles as vectors, as elements in a becoming that is irreducible to these coordinates. The plane of subjectivation is thus approached as a site of experimental praxis in which the *creation* of a new subjectivity can take place, a subjectivity immanent to vital and affective forces captured in the work(ing) of art. In this way, affect can become 'the locus of a labour, of a potential praxis' Guattari writes (Guattari, 2013, p. 210). If the sensible affect gives us a 'sentiment of being,' aesthetic experimentation can work with the plane of problematic affects as 'an active way of being' (Guattari, 2013, p. 211). This is one aspect of what Guattari calls the singularization of subjectivity, the opening up and creation of a new subjectivity no longer bound to stable and predetermined coordinates attached to the individualized ego: it is a subjectivity of the event, of pure becoming.

The question of a direct encounter with intensity can be posed as conditioned also by the creation of a new subjectivity in becoming. When Deleuze and Guattari write that the deterritorializing power of music is determined also by a state of force on the part of the listener, this can be related to the formation of such an intensive subjectivity. But music with its intense field of affects is precisely the vector of such becoming. Deleuze and Guattari suggest that the content proper to music is 'becomings': 'musical expression is inseparable from a becoming-woman, a becoming-child, a becoming-animal that constitute its content' (Deleuze & Guattari, 2007, p. 299). Thus, music involves the listener in affects and percepts whose intensive reality pierce the subject's listening body and establish an intensive field of individuation:

Certainly, music traverses our bodies in profound ways, putting an ear in the stomach, in the lungs, and so on. ... it involves our body, and bodies in general, in another element. It strips bodies of their inertia, of the materiality of their presence: it *disembodies* bodies. We can thus speak with exactitude of a sonorous body, and even of a bodily combat in music — for example, in a motif — but as Proust said, it is an immaterial and disembodied combat 'in which there subsists not one scrap of inert matter refractory to the mind.' ... It is lodged on lines of flight that pass through bodies, but which find their consistency elsewhere... (Deleuze, 2005, pp. 38–39)

The question of a direct encounter with intensity concerns all the above elements: the creation of a molecularized musical material and the molecularization of perception; the active affirmation of heterogenesis in the problematic affect; the formation of a state of force on the part of the listener (or on the part of the thinker's conceptual modulation). As such, the creation of a direct encounter with intensive forces – even if it requires an *event* in which sensation turns in on itself and gives to experience its conditioning forces – can be considered

dependent on practice and an apprenticeship. The conditions to be met must be experimented with, constructed and constantly renewed as part of a continuous process of becoming and singularization of subjectivity. In such an extended concept of aesthetics as transcendental empiricism, music and musical practice can form assemblages with other practices. As will be explored more in the following chapters, not only listening, performing, studying and practising (instrumentally or mentally), composing or improvising, but also philosophical and conceptual work, contemplative or meditative practices, bodily exercises and other forms of experimentation can form assemblages with the properly musical domain. As part of a singularization of subjectivity, exploring and experimenting with the differential threshold of microperception and problematic affects, music both retains an autonomous dimension, and functions as a line of flight that can take musical experience beyond what we know to be music.

To close this chapter, I will briefly refer to Guattari's analysis of musical assemblages as part of an apprenticeship in his reading of Proust in the second part of *The Machinic Unconscious*, called 'Refrains of Lost Time'. In this work, Guattari reads Proust's novel as a 'scientific exploration in the same category as the work of Freud or Newton', exploring 'hyper-deterritorialized mental objects', 'mutations of perceptive components' and 'unclassifiable realities' (Guattari, 2011, pp. 231–233). Music leads this search and constitutes the refrain of apprenticeship and becoming. The 'little phrase' of Vinteuil forms the centre of Guattari's literary reflections and makes music the locus of a kind of transcendental empiricism. Nine different assemblages of this music's circumstances, contexts and matters of expression are studied. In the ninth, Guattari reads Proust's novel as presenting two stages of "becoming-invisible," which transform the refrain into a pure unconscious machinism' (Guattari, 2011, p. 296), leading to the 'abstract machinism of creation', that is, to creative nature. Music occupies a central function in this process from the very beginning of the novel. After having been the locus of all sorts of social and personal transformations and constellations of forces, music eventually enters into a becoming-imperceptible. The narrator eventually leaves explicit reflections on music behind, but this does not imply that music occupies a lesser role in the novel, according to Guattari. To the contrary, music now moves into writing itself; 'it is writing itself that becomes musical. Music traverses the notes, sounds, walls...' (Guattari, 2011, p. 300). After having emitted affects in various situations, creating different assemblages of enunciation and moving the subject in processes of relative becoming, a new music enters the centre of the subject's being in this last phase. This comes from so many previous subjective and social displacements, and this trajectory constitutes the apprenticeship which leads to what Guattari calls dissolved music in the ninth assemblage, a kind of 'cosmic polyphony' or 'world-organ' which contrasts the synthesizing of sensations that Swann felt in Vinteuil's music to the narrator's 'music closer to the deterritorializing subject' (Guattari, 2011, pp. 321–323). This transformation brings us to a 'music to come ... a music at the root of all other music' (Guattari, 2011, pp. 323–324).

Guattari then reads Proust's novel as a musical line of flight where the little phrase is a refrain of becoming which will eventually find music at the heart of a subjectivity no longer in opposition to the world, but rather inserted into the abstract machinism of creation:

Introspection, folding upon oneself no longer leads to a contemplation of the void and powerlessness: the subject's search has become the construction of a new subjectivity; it opens up reality in its diversity and illuminates the diagrammatic articulations between the realities of the 'outside' and those of the 'inside'. (Guattari, 2011, p. 329)

With this literary example of music as the locus of transcendental empiricism, the principal problem of a direct encounter with intensive forces is presented in a more processual and existential way. As a 'search' and becoming, it leads from explorations of socially situated musical assemblages to the creation of a new subjectivity in direct communication with the forces of the outside, opening itself to a plane of immanence whose intensive reality is music in its virtual state. Music has thus gone from being a leitmotif in an apprenticeship to the intensive nature of the world as becoming or what Guattari also terms abstract machinism. At this point, music has dissolved itself and become imperceptible, but this dissolution of the actual only reveals the virtual being of the world as a cosmic 'music'. While Guattari presents an analysis of a literary work, the centrality of music within it shows us an image of the transformation music and aesthetic experience undergo when the intensive nature of music is being pursued and eventually discovered in itself, as intensity in its pure state.

3.4 Summary

In this chapter, I have developed problems that concern the relationship between music and transcendental empiricism. I first developed the concept of intensity in relation to music and argued the importance of distinguishing between covered and unmediated intensities to avoid missing the singularity of the latter kind of experience. Furthermore, I showed how intensity relates to the sub-representative syntheses of time and the distinction between macro- and microperceptions.

The question of a direct unmediated encounter with intensity in music was discussed and related to critical questions raised about Deleuze and Guattari's reading of music history. I suggested that some of this criticism is due to a dialectical reading that imports opposition and reified concepts when Deleuze and Guattari's thought must rather be grasped as expressing a polarity of forces. The problem with a historical narrative was raised and left unsolved.

I then suggested that the notion of unmediated intensive difference should be understood in relation to the concept of a differential threshold in perception and that beyond this threshold, listening comes into contact with its own molecular dimension, such that the imaginative contraction of time is penetrated by a microperceptual and differential plane. On this basis, the contours of a transformative and transgressive musical experience can be seen, one where the actuality of music opens to a virtuality and where music may even become Other to itself.

This led to a discussion of music and aesthetic experience in the context of transcendental empiricism. In this section, I argued that such a musical becoming-Other should be understood as an immanent potential of actual music. I presented aesthetic experience as a privileged category of transcendental empiricism and developed it by adding Guattari's account of problematic affect to the foregoing discussion of microperception. This led to a more developed concept of music as transcendental empiricism, which I then suggested one can find in Guattari's reading of Proust. Here, music is read as a locus of becomings, culminating in a becoming-cosmic of music that parallels the creation of a new singularized subjectivity that – and this was only stated without being developed, although it is arguably implicit in the account – is compatible with and functional on the plane of immanence.

The ideas presented in this chapter lead now to the following questions: can such a differential idea of music be found outside Deleuze and Guattari's philosophical apparatus? Is it possible to test this understanding of a musico-philosophical creation of transcendental empiricism by studying and interpreting the theories and ideas of composers?

The next three chapters will attempt to answer these questions by looking for proximate ideas and a similar economy of concepts in the thought of the composers Schönberg, Messiaen and Scelsi. By reconstructing the composers' philosophical concepts, general ideas and influences, I will argue for three different ways through which we can recognize the central concepts and ideas operative in Deleuze and Guattari's philosophy. This will require a certain change of discourse, as I will not take Deleuze and Guattari's system as my point of departure. Instead, my point of departure will be the central ideas and influences in the thought of these composers. By means of a philosophical reading of these ideas, I will approach the differential and intensive nature of music expounded by Deleuze and Guattari. Concretely, this means I will study the composers' ideas and inspirations to explicate them in a philosophical framework and examine them against the understanding of transcendental empiricism developed in the previous chapters. In this way, I seek to create an encounter between Deleuze and Guattari's philosophy and the theory and ideas behind these composers' musical thinking in a way that can be mutually illuminating.

4 Arnold Schönberg and the Dodecaphonic Reflection of a Unitary Musical Space

This chapter seeks to analyse Schönberg's ideas and thinking about music by developing a Goethean image of thought in which the question of an imaginative apprehension of forces plays a central role. The question of how music can create a direct encounter with intensive forces is approached by reading Goethe and Schönberg together and extracting the problems with which Schönberg's musical thinking engages. Goethe is central to Schönberg's thinking, and thus, Goethe functions as the hinge between Schönberg and Deleuze and Guattari's differential thought.

Against the background of the Goethean image of thought, I consider how Schönberg's musical thinking can be understood as preoccupied with the question of how music can express the musical Idea as an intensive reality. Elements from Schönberg's musical thinking are related to Goethe's epistemological and metaphysical ideas, which then lead to the concepts of intensity and the virtual in Deleuze's philosophy. In this way, a vision is developed wherein music can be seen as a part of transcendental empiricism.

In this synthesis of ideas, I build on several previous studies. The intimate relationship between Schönberg's thinking and Goethe's ideas is presented systematically in an article by Severine Neff, to which I refer and build on in this chapter (Neff, 1993). I also draw from ideas developed in several articles by John Covach (Covach, 1992; 2000; 2017). Covach argues for taking Schönberg's reference to Swedenborg in his lecture on twelve-tone composition seriously, suggesting that Schönberg's conception of the musical Idea can be better understood in this way. He further argues that Rudolf Steiner's esoteric interpretation of Goethe's ideas may have importantly impacted Schönberg's thinking. Covach's work has been crucial in my reconstruction of the Goethe–Schönberg relationship, even if I take a somewhat different approach in the way I develop this relationship and bring out the philosophical and epistemological operations behind Goethe's thinking. My understanding of Goethe's morphology is also indebted to several authors, many of whom are mentioned in the text. For example, Eckhart Förster (2012) argues for Goethe's philosophical consistency and importance, David Wellbery (2014) provides a concise picture of Goethe's epistemology and Éric Alliez (2016) shows how Goethe develops a morphological monism, bringing him closer to Deleuze's philosophy of immanence than to the widespread phenomenological interpretations of his work.¹⁶ Finally, Frederick Amrine writes about Deleuze and the Goethean paradigm of 'an

16 A contemporary and post-structuralist dimension of Goethe's thinking is also advanced by Eva Geulen (2012), who writes in her study of the *Ur-Pflanze* that it is possible to see an early model of self-organizing matter without any determining teleological principle in Goethe's morphology.

alternative scientific method in which an imaginative faculty previously restricted to aesthetics—*anschauende Urteilskraft*, or “intuitive judgment”—is transformed into the rigorous instrument of an expanded science’, claiming that Deleuze is ‘aligning himself directly with this Goethean counterparadigm’ (Amrine, 2015, pp. 46–47).

I begin the chapter by situating Schönberg in relation to Goethe. Then, I present the central concepts belonging to Goethe’s morphology: his conception of the Idea, its imaginative apprehension and the polarity of forces at the ground of Nature. I then proceed to outline Schönberg’s Goethean thinking on the tone as a vital event and music as a play of forces. On this basis, I turn to Schönberg’s presentation of dodecaphony and read his statements in light of the Goethean image of thought as an aspiration to create music reflective of the Idea. This interpretation is then grafted onto Deleuze’s conception of the Idea as an instance that encompasses virtual, intensive and actual states. From this, I suggest that Schönberg’s ideas can be understood in relation to Deleuze’s notion of intensive difference as the field of individuation behind actualization and thus can be seen as creating music which seeks to create an encounter with intensive forces. I end the chapter with a short excursion into Boulez’s critique of Schönberg to consider the perspective on serial logic relating to the virtual Idea – or the virtual cosmic continuum, as Deleuze and Guattari call it – beyond the case of Schönberg.

4.1 Schönberg, Goethe and the Musical Idea

According to Schönberg scholar Severine Neff, Goethe had an ‘exceptionally powerful influence on Schoenberg’ (Neff, 1993, p. 409). Neff writes that in 1934, this influence crystallized into a major unfinished manuscript called *Der musikalische Gedanke und die Logik, Technik und Kunst seiner Darstellung*.¹⁷ Neff, who edited, translated and wrote an extensive commentary on the piece together with Patricia Carpenter, writes that this ‘manuscript adopts the terminology and epistemology of Goethe’s comparatively neglected scientific work’ (Neff, 1993, p. 409). Neff and Carpenter’s work highlights how many elements of Goethe’s thinking can be found in Schönberg’s work, partly filtered through Schopenhauer’s philosophy: Goethe’s views on intuitive contemplation, his morphological approach to the living form, his view on genius as the capacity for spiritual participation in Nature and his views about the Idea or *Urphänomen* can all be found in Schönberg’s thought. This is not surprising, as Goethe

17 Edited and translated by Patricia Carpenter and Severine Neff as Arnold Schoenberg, *The Musical Idea and the Logic, Technique and Art of its Presentation* (New York: Columbia University Press, 1995).

and Schopenhauer's ideas were influential elements circulating in Schönberg's environment. Schönberg also had several volumes by both authors in his library.¹⁸

It is well-known that Schopenhauer, who was himself greatly influenced by Goethe, considered music a direct expression of the Will, his concept for the fundamental creative force of the world. This Will-force, mediated by representation and abstract knowledge, is palpable within some experiential domains, and in music, it reaches its most direct expression. Pamela White shows that Schönberg's conception of the ontological ground of the musical Idea (or *Gedanke*) is indebted to this Schopenhauerian vitalism (White, 1984).

Neff and Carpenter, along with other theorists, also demonstrate that Schönberg's conception of the musical Idea can be traced through Schopenhauer and back to Goethe's thinking. For example, Malcolm MacDonald writes that Schönberg 'approached Goethe's metaphysical notion of the *Ur-phenomen*, the primordial, archetypal essence of a thing' (MacDonald, 2016, p. 121) and that he believed musical compositions embodied such an essence. As will be seen below, for Goethe, the *Ur-phenomen* or Idea must be approached as a reality of forces. This means that it must be approached not only in itself but also that its cognition or apprehension is only possible as a force-relation. If music embodies an Idea, understood as a reality of force (Goethe) or Will (Schopenhauer), then the question of its presentation consequently concerns precisely the problem pursued in this thesis: music as an encounter with intensive forces.

This question also relates to the role and function of music in Schönberg's thinking. Michael Cherlin writes that 'Schönberg's understanding of the role of music is not separable from its place as a constituent of *Bildung*... not an "entertainment"; it was an extraordinarily important constituent in the ongoing process of self-formation' (Cherlin, 2009, p. 10). Cherlin shows that Schönberg was deeply influenced by such an ideal and considered his musical practice part of such a process, to the extent that he felt himself embodying an impulse relevant to musical and even general culture as a whole. In this social-political perspective, the musical *Bildung* becomes a transpersonal process. For Schönberg, to develop music is to develop human sensibilities, and music can act as a sonic refraction of an expanded sensibility. In this sense, music is a place of awakening, a place of expanding the sensation of music into the super-sensible. Accordingly, John Covach writes that for Schönberg,

the mystical nature of the musical idea suggests that 'what a piece is' lies somehow beyond the artwork that sounds in the material world. According to this

18 See the catalogue at the *Arnold Schönberg Center* website, www.schoenberg.at/index.php/en/archiv-2/bibliothek. Accessed 12.01.2022.

interpretation, the musical artwork provides a kind of window that opens onto some ‘higher realm.’ A piece of music, through its specific structure and the poetics that guide its formation, acts as a means to transport the listener to this ‘other world’; the structure of a work and even the poetics are not to be considered as ends in themselves. The end in composition is always the representation of the ineffable *musikalische Gedanke*. (Covach, 2000, pp. 334–35)

To understand the implications of Schönberg’s view that music embodies an Idea, it is necessary to examine Goethe’s thinking in some detail. This will provide us with a foundation for understanding Schönberg’s conception of how music expresses the Idea and, further, how dodecaphony can be seen as intended to intensify the relationship between music and the Idea. This detour via Goethe’s morphology will provide an insight into a vitalist image of thought that can accommodate Schönberg’s ideas of music and the Idea where the imagination serves as the locus where living form becomes an apprehension of intensive forces. Based on this discussion, the notion of a direct encounter with intensive forces can be approached.

4.2 Goethean Morphology

According to the philosopher Eckhart Förster, Goethe embarked upon ‘the project of a Spinozist *scientia intuitiva* on the basis of Kant’s characterization of the intuitive understanding’ (Förster, 2012, p. 254). Goethe was engaged in researching many different empirical phenomena, such as colours, plants and animals, seeking to understand the Idea expressed in a phenomenon in its concrete manifestation. Through the distinction between the *Idea* or *Ur*-phenomenon and actual phenomenon, Goethe operates with a seemingly dualistic distinction between an internal essence and the physical world of time and space. However, this concept of form is understood in a dynamic relationship to its physical expression. The Ideal nature of the *Ur*-phenomenon is regarded by Goethe as a process of change and metamorphosis, showing itself in and as the very expression of the actual phenomenon. The Goethe scholar David Wellbery describes this notion as a change from the classical understanding of the platonic *eidetic form* to a new conception of *endogenous* form. The word *endogenous* is taken from biology, denoting growth and formation triggered by factors inside the organism. Wellbery summarizes the Goethean epistemology as follows:

It is a matter of the epistemological figure of a systematically trained intuition entering into the thing, recreating its form according to its inner principles. This figure one could designate as ‘subject-object identity in the phenomenon,’ and

also as 'spontaneous receptivity'. From the interlocking of these three figures the so-called endogenous conception of form emerges in its Goethean variant. ... The content [*Sinn*] of this form is a specific configuration of time, which neither develops within, nor completely outside the time of the normal course of life. Rather, the experience of this time-configuration moulds itself as an oscillation between the mutual excluding determinations of time as contemporaneity and succession. In the experience of the Idea, succession is brought under the aspect of contemporaneity, and contemporaneity under the aspect of succession, in and as intuition. (Wellbery, 2014, p. 26)

As Wellbery makes clear, grasping endogenous or organic forms requires a reconfiguration of the elements involved in cognition. Consciousness can no longer remain external to its object of study; a subject-object identity in the phenomenon must be realized. This results from an empathetic study, a systematically practised intuition that allies itself with the phenomenon. Such a study brings about a further transformation, which Wellbery calls spontaneous receptivity. The opposition between activity and passivity in perception is here raised to a higher level, becoming a force both spontaneous and receptive, indicating again the participative nature of Goethean empiricism. Finally, as this metamorphosis of the cognitive faculties takes place, the temporal nature of experience changes. Sensing is no longer dependent on the ordinary mediation of space and time; time acquires a spatial configuration, becoming non-chronological. These characteristics allow the endogenous conception of form to become a view wherein the Idea emerges as a concrete manifestation. According to Ernst Cassirer, on this point, Goethe is unique in his thinking and approach to nature:

There prevails in his writings a relationship of the 'particular' to the 'universal' such as can hardly be found elsewhere in the history of philosophy or of natural science. It was his firm conviction that the particular and the universal are not only intimately connected but that they interpenetrate one another. The 'factual' and the 'theoretical' were not opposite poles to him, but only two expressions and factors of a unified and irreducible relation. This is one of the basic maxims in his view of nature. (Cassirer, 1978, p. 145)

At this point, we can see the contours of how it is possible to read Schönberg's musical Idea into this epistemology. If the concrete sensible perceptions of music can give rise to an apprehension of the musical Idea, then this will entail a change in the relationship between succession and simultaneity – a change in the imaginative faculty – resonating with Schönberg's idea of the perception of a unitary musical space. How does Goethe depict this kind of higher empiricism?

4.2.1 Intuitive Contemplation and the Metamorphosis of Imagination

For Goethe, the intuitive perception of the Idea or *Ur*-phenomenon depends on a thorough study of the phenomenon in question, and such a detailed and analytic study must be vitalized and intensified. This is the function of *imaginative variation*: to recreate the studied phases and formative movements of the plant's growth in the imagination. Goethe explains this process as follows:

If I look at the created object, inquire into its creation, and follow this process back as far as I can, I will find a series of steps. Since these are not actually seen together before me, I must visualize them in my memory so that they form a certain ideal whole. At first I will tend to think in terms of steps, but nature leaves no gaps, and thus, in the end, I will have to see this progression of uninterrupted activity as a whole. I can do so by dissolving the particular without destroying the impression itself ... If we imagine the outcome of these attempts, we will see that empirical observation finally ceases, intuitive perception of the developing organism begins, and the idea is brought to expression in the end. (Goethe, 1988, p. 75)

Goethe bases his work in botany on a meticulous study and devotion to plants, learning their details, compiling their parts and seeing how the parts follow each other in succession. From this, he identifies regularities and archetypal patterns of plant growth, which he describes using the concept of a threefold expansion and contraction:

We first noted an expansion from the seed to the fullest development of the stem leaf; then we saw the calyx appear through a contraction, the flower leaves through an expansion, and the reproductive parts through a contraction. We will soon observe the greatest expansion in the fruit, and the greatest concentration in the seed. In these six steps nature steadfastly does its eternal work of propagating vegetation by two genders. (Goethe, 2009, p. 60)

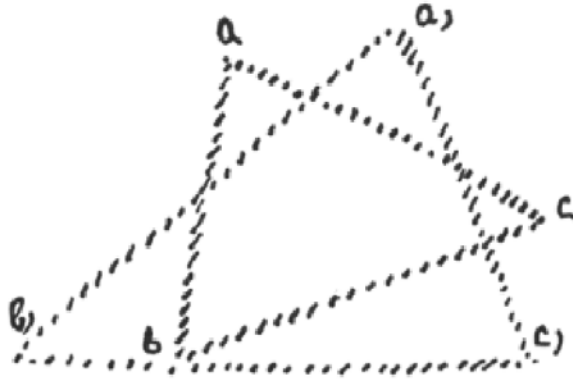
Contraction and expansion are processes or movements found through the empirical study of the plant brought into imaginative variation. In each of the three steps, a gradual internalization of the life-process takes place: the first expansion and contraction follow each other in succession, the second take place simultaneously side by side, and in the third repetition, expansion and contraction are completely interwoven. In this maximum contraction of the seed, the power of growth and expansion is virtually present. Thus, the relationship between the virtuality of life and its actualization is different in each of the three stages.

Despite the many variations and alterations found in plants, Goethe claims that this process constitutes a matrix or fundamental pattern of plant growth. To understand the plant as such a process, all this must serve as material for developing a sense of the transformations. The physical senses only grasp momentary pieces of the process, yet the sensible impressions serve as material for an imaginative creation of the process of growth. This is what Goethe calls the *exact sensorial imagination*, which he describes as leading to a transformation of the imaginative faculty: 'I will have to see this progression of uninterrupted activity as a whole.' In this process, the particular impressions are gradually dissolved, but 'without destroying the impression', and as a result, 'empirical observation finally ceases, intuitive perception of the developing organism begins, and the idea is brought to expression in the end' (Goethe, 1988, p. 75).

In *The Metamorphosis of Plants*, Goethe writes that one must become as 'comfortable working with the principles established above – expansion and contraction, compaction and anastomosis – as he would with algebraic formulas' (Goethe, 2009, p. 92). In the same way a mathematician works with numbers and formulas to derive results, the student of living nature must work imaginatively with movements of contraction and expansion. Thus, the metamorphosis of a plant must be experienced *as* expansion and contraction – as forces working upon and within the thinking process. Thinking therefore must engage *energetically* with the sense-perceptible forms and their transformations in the imagination to reach a perceptual and imaginative alliance which recognizes expansion and contraction as forces also in the imagination. In his study of Goethe and painting, Éric Alliez notes that Goethe points to this process in his conversation with Eckermann, in which he says that one must see 'into the secret inner life of the plant, into the stirring of its powers, and [observe] how the flower gradually unfolds itself' (Alliez, 2016, p. 44).

Rudolf Steiner, who began as a Goethe scholar before developing his theosophical and anthroposophical work, gives an interesting suggestion as to how one can approach the relationship between the particular and the universal in Goethe's thinking. He highlights his view that the basic principle of Goethe's morphological thought requires a metamorphosis of the imagination. In the same way as the *Ur-pflanze* points to an experience of the plant where a universal concept emerges from contemplating the particular, Steiner considers the concept of a triangle. Any actual triangle expresses the universal concept of a triangle in a particular way, thus embodying the universal in the particular case. How would one think about the universal concept of a triangle not as an abstract generalization but as a concrete, living universal? Steiner explains:

Let us take this triangle that we have here, and let us allow each side to move as it will in any direction, and moreover we allow it to move with varying speeds, so that next moment the sides take, e.g., these positions [See Example 1].



Example 1: Continuous variation of a triangle.

In short, we arrive at the uncomfortable notion of saying: I will not only draw a triangle and let it stay as it is, but I will make certain demands on your imagination. You must think to yourself that the sides of the triangle are in continual motion. When they are in motion, then out of the form of the movements there can arise simultaneously a right-angled, or an obtuse-angled triangle, or any other. (Steiner, 1991, pp. 14–15)

Steiner claims that this process leads to a conception of the universal triangle as a ‘living universal’, opposed to an abstract universal. When thinking is brought into movement, the triangle comes alive, and the idea of a triangle becomes a reality that contains all triangles as potential. This, Steiner says, leads us to understand the nature of Goethe’s morphology, wherein form is always in movement, formation and transformation:

take the triangle as a starting-point, and allow each side to move in various directions and at different speeds. In this case it is not quite so easy; we have to carry out movements in our thought. But in this way we really do lay hold of the triangle in its general form; we fail to get there if we are content with *one* triangle. The general thought, ‘triangle’, is there if we keep the thought in continual movement, if we make it versatile. [...] Turn to what Goethe wrote in his ‘Metamorphosis of Plants’ and see what he called the ‘primal plant’ (*Urpflanze*), and then turn to what he called the ‘primal animal’ (*Urtier*) and you will find that you can understand these concepts

‘primal plant’ and ‘primal animal’ only if your thoughts are mobile – when you think in mobile terms. If you accept this mobility, of which Goethe himself speaks, you are not stuck with an isolated concept bounded by fixed forms. You have the living element which ramifies through the whole evolution of the animal kingdom, or the plant-kingdom, and creates the forms. During this process it changes – as the triangle changes into an acute-angled or an obtuse-angled one – becoming now ‘wolf’, now ‘lion’, now ‘beetle’, in accordance with the metamorphoses of its mobility during its passage through the particular entities. Goethe brought the petrified formal concepts into movement. That was his great central act; his most significant contribution to the nature-study of his time. (Steiner, 1991, pp. 15–17)

Steiner describes the imaginative variation of the triangle as the means by which an intuitive grasping of the universal takes place, not only as an abstract idea but as a concrete, living universal. Goethe’s study of nature is embedded in such an operation, Steiner says, making the empirical study of forms into one morphological essence. Bringing ‘the petrified formal concepts into movement’, thinking itself turns into a perception of that ‘living element which ramifies through the whole evolution’.

Steiner’s account has the advantage of being intuitively comprehensible: it is easy to follow the imaginative variation of a triangle to apprehend the universal concept of a triangle, which otherwise can be thought of only as an abstraction. However, it is equally ‘impossible’ to grasp how this apprehension is possible as a normal imaginary representation; however much it moves, the triangle still seems far from a concrete universal. The key here – if this example represents a possibility, which naturally is a fundamental question – seems to lie in Steiner’s claim of transforming the imaginative faculty itself into a *force-reality*.¹⁹ In any case, we can see here the epistemological elements that David Wellbery outlines as corresponding to Goethe’s Idea: ‘a systematically trained intuition entering into the thing, recreating its form according to its inner principles. This figure one could designate as “subject-object identity in the phenomenon”, and also as “spontaneous receptivity”’ (Wellbery, 2014, p. 26).

These characteristics show the imagination as a *threshold* where the subjective and the objective potentially touch and intermingle in a living element of force. This is captured in the German term *Einbildungskraft*, of which the English *imagination* is a translation. However, whereas the ‘image’ in ‘imagination’ suggests something static and visual, the German word embodies the meaning of formation (*Bildung*) and force (*Kraft*) and is not inherently connected to visual imagery. With the neologism *Ineinsbildung*, Schelling conceptualizes the imagination precisely as such an individuating threshold:

19 Trop (2021) provides a helpful overview of the notion of Force (*Kraft*) as a philosophical concept in Goethe’s thought.

The splendid German word ‘imagination’ [*Einbildungskraft*] actually means the power of *mutual informing into unity* [*Ineinsbildung*] upon which all creation really is based. It is the power whereby something ideal is simultaneously something real, the soul simultaneously the body, the power of individuation that is the real creative power. (Schelling, 1989, p. 32)²⁰

The account so far can be summarized as follows: by studying, internalizing and reproducing the forms of nature, the student of nature introduces movement and intensity into imaginative thinking. When this movement itself is gripped by movement, the imagination is no longer a mere subjective faculty but, brought to its limit, becomes the ‘place’ where the formative forces of nature individuate as human consciousness. The active synthesis of the mind (imaginative representation) is here penetrated by the sub-representative passive synthesis of time (*Ineinsbildung* or forces). This is the condition for conceiving the Idea as a concrete universal, where ‘empirical observation finally ceases, intuitive perception of the developing organism begins, and the idea is brought to expression in the end’ (Goethe, 1988, p. 75).

This brings us to the nature of this intuitive experience – the temporal element – which was the last element in Wellbery’s summary of Goethe’s epistemology: the specific time-configuration belonging to the experience of the Idea is neither *in* time nor completely *outside* time. Goethe comments on this disjunction between empirical experience and the apprehension of the Idea as opening and plunging one into a veritable madness:

This difficulty in uniting idea and experience presents obstacles in all scientific research: the idea is independent of space and time while scientific research is bound by space and time. In the idea, then, simultaneous elements are closely bound up with sequential ones, but our experience always shows them to be separate; we are seemingly plunged into madness by a natural process which must be conceived of in idea as both simultaneous and sequential. (Goethe, 1988, p. 33)

Succession must be thought of as simultaneity, but to embark on such an adventure one will have to sustain this vertigo: to attain a thought in which sequences in time become co-existing elements.

The account of Goethe’s conception of the Idea as it appears through his epistemology now serves as the background for investigating how Schönberg conceives music as an expression

²⁰ Dalia Nassar argues that Schelling ‘found in Goethe’s conception of plant metamorphosis the key to understanding nature as a self-producing, organic whole’ and that Goethe thus played an essential role in Schelling’s transition from a philosophy of self to a philosophy of nature (Nassar, 2010, p. 307).

of the Idea as a being of force. Based on Severine Neff’s table of correspondence between Schönberg and Goethe’s ideas, I first consider how Schönberg conceives of the tone as an Idea/force and how a work of music is an elaboration of these forces. This then leads to the paradox of a temporal presentation of the Idea. Goethe claims that the Idea encompasses successive elements that appear simultaneously, as well as a non-static temporal simultaneity. The same paradox can be found in Schönberg’s thinking – Carl Dahlhaus even considers it the basis of his musical thinking. This leads to the suggestion that dodecaphony is conceived of as a system reflecting the virtual nature of the Idea. Finally, I proceed to consider this system in relation to Deleuze’s conception of the Idea and its virtual and intensive reality.

4.3 The Musical Idea in Schönberg’s Goethean Thinking

In an article published in 1993, Severine Neff presents a table (Example 2) showing the correspondence between Goethe’s epistemological and botanical concepts and Schönberg’s musical adaptation of the concepts.

a. Goethe’s Epistemology		b. Schoenberg’s Adaption of Goethe	
<i>Anschauung</i> [“intuitive contemplation”]	<i>Anschauung</i> [“intuitive contemplation”]	<i>Anschauung</i> [“intuitive contemplation”]	
<i>Urphänomen</i> [“archetype”]	<i>Urplanze</i> [“archetypal plant”]	<i>Monotonalität</i> [“monotonicity”]	
		<i>Grundton</i> [“fundamental”] in nature	
		Tonic in art	
<i>Bildung/Umbildung</i> [“formation”/“transformation”]	<i>Bildung/Umbildung</i> [“formation”/“transformation”]	<i>Bildung/Umbildung</i> [“formation”/“transformation”]	
<i>Der innere Kern</i> [“inner nucleus”]	<i>Blatt</i> [“Leaf form”]	<i>Hauptmotiv</i> or “tonal problem” [“basic motive”]	<i>Grundgestalt</i> [“basic configuration”]
<i>vis centrifuga</i> [“centrifugal force”]	Outward growth	Centrifugal force: motion from tonic	
<i>via centripeta</i> [“centripetal force”]	Inward and upward growth	Centripetal force: motion to tonic	
<i>Function</i> [“function”]	Cotyledon, leaf, petal stem	Functioning parts: statement, transition, contrast, retransition, final section, coda	
<i>Gestalt</i>	Individual plant gestalt	Individual piece	

Example 2: Corresponding concepts in the work of Goethe and Schönberg. From Neff, 1993 (p. 412).

Schönberg considered 'intuitive contemplation' [*Anschauung*] the source and goal of his musical thinking and creativity. The object of this *Anschauung* is the *Urphänomen*. Neff does not include the term Idea, but as we have seen above, the *Urpflanze* – which Neff places as the botanical equivalent to the generic term *Urphänomen* – is cognate with the term Idea. Schönberg's musical adaptation conceptualizes the *Urphänomen* as *Monotonalität*. In this context, *Tonalität* or tonality does not necessarily mean functional tonality but simply concerns the realm and phenomenon of the tone, whether in a natural or artistic context.²¹ Neff writes:

Schoenberg understood *Monotonalität* as an *Urphänomen* functioning in both nature and art. The natural basis of *Monotonalität* is the *Grundton*, the fundamental of the overtone series. In the artistic realm the *Grundton* is understood to be the tonic, and the overtones, the regions of the tonic. (Neff, 1993, p. 415)

This implies that art realizes what lives potentially in nature, uncovering and differentiating the forces active in a tone. In music based on functional tonality, the tension between the fundamental tone and the overtones is expanded into the harmonic relationship between the tonic and harmonic regions. This is only one way of expanding the potential of the tone. Music that does not build upon this tonal system is also referred back to *Monotonalität* as *Urphänomen*. In any case, the relationship between the fundamental and the distance traversed from it is a dynamic relationship of force, and consequently, is the fundamental level and reality of music for Schönberg. This can be related to Schönberg's Schopenhauerian inspiration, but we find it even more clearly articulated in Goethe's morphological idea of polarity and the intensification of the forces of contraction and expansion.

The *Urphänomen* or Idea of the tone is thus the centripetal and centrifugal force of intensive movement between the *Grundton* and the expanding overtones. A tone is a composite sound [*Klang*] expressing the interaction of these two forces:

The primitive ear hears the tone as irreducible, but physics recognizes it to be complex. In the meantime, however, musicians discovered that it is *capable of continuation*, i.e. that *movement is latent in it*. That problems are concealed in it, problems that clash with one another, that the tone lives and seeks to propagate itself. (Schönberg, 1978, p. 313)

21 In his *Harmonielehre*, Schönberg writes, 'A piece of music will always have to be tonal, at least in so far as a relation has to exist from tone to tone by virtue of which the tones, placed next to or above one another, yield a perceptible continuity' (Schönberg, 1978, p. 432).

The tone is not a given object of perception but a living dynamic process, a configuration of forces that is only partly perceived. Artistic creation means penetrating this unconscious vitality of the tone as Idea and using this potential. Already, this shows that Schönberg considers the basis for artistic creation to lie in a perceptual participation in listening to the tendencies within nature. The tone as a living Idea with its own dynamic and life – the tone that lives and seeks to propagate itself – is met by the composer with their capacity to listen, experience and free this inner life in the artistic realm. Art is nature expanding itself and in its higher potency. Again, we can detect a profoundly Goethean inspiration: ‘The Beautiful is a manifestation of secret laws of nature, which, without its presence, would never have been revealed’ (Goethe, 1906, p. 208. Maxim 481).

For Schönberg, musical creativity and the perception of the tone are thus intimately connected. In this process, Schönberg sees an evolution of the human spirit, and this evolution of perception goes hand in hand with the evolution of music. In his *Harmonielehre*, Schönberg writes:

[T]he tone is the material of music. It must therefore be regarded, with all its properties and effects, as suitable for art. All sensations that it releases—indeed, these are the effects that make known its properties—bring their influence to bear in some sense on the form of which the tone is a component, that is, on the piece of music. In the overtone series, which is one of the most remarkable properties of the tone, there appear after a few stronger-sounding overtones a multitude of weaker-sounding ones. Without a doubt the former are more familiar to the ear, while the latter, hardly perceptible, are rather strange. In other words: the overtones closer to the ground tone seem to contribute more or more perceptibly to the total phenomenon of the tone—the tone accepted as euphonious, suitable for art—while the more distant seem to contribute less or less perceptibly. But it is quite certain that they all do contribute more or less, that of the acoustical emanations of the tone nothing is lost. And it is just as certain that the world of feeling somehow takes into account the entire complex, hence the more distant overtones as well. Even if the analyzing ear does not become conscious of them, they are still heard as tone color. That is to say, here the musical ear does indeed abandon the attempt at exact analysis, but it still takes note of the impression. The more remote overtones are recorded by the subconscious, and when they ascend into the conscious they are analyzed and their relation to the tone as a whole is determined. (Schönberg, 1978, pp. 20–21)

The tone as an idea of nature, as a living force, is perceived partly subliminally and partly consciously. Analytically, we can hear and distinguish the overtones closer to the ground tone, but the life of feeling takes in a much greater complexity of tones. This complexity is found

in the sensation of the colour or timbre of a sound. Over the course of time, one's perception may evolve to include more of what is inherent in the tone-experience, Schönberg says, and music both reflects and drives this process.

What today is remote can tomorrow be close at hand; it is all a matter of whether one can get closer. And the evolution of music has followed this course: it has drawn into the stock of artistic resources more and more of the harmonic possibilities inherent in the tone. (Schönberg, 1978, p. 21)

Music thus realizes the potential of the tone-Idea, and a composition is the realization of a tone corresponding to the degree or mode of its perception. In this parallel evolution of music and perception, Schönberg not only refers to the possibilities inherent in the tone that have already been explored but also to a possible future development in music that could include the more distant and presently inaudible elements and overtones:

For it is quite probable that the higher, the more complicated numbers, the more complex harmonic relations conceal in themselves a still richer *Mystik* than that of the prime numbers, of the irreducible, simpler harmonic relations. (Schönberg, 1978, p. 132)

This possible development can be understood with regard to dodecaphonic music, which no longer creates harmonic relations corresponding to the basic prime numbers of the first partials of the overtone series (begetting the basic intervals of the triad). However, one can also understand it as pointing beyond dodecaphony to future music which includes sonorities corresponding to the higher overtones, leading beyond the chromatic scale into a microtonal universe reflecting the tone as a continuum of forces.²² Schönberg's ideas of *Klangfarbenmelodie* may belong to this notion.

Musical idioms of functional tonality are conventional ways that the tone-potential is brought out and made into a musical language. When composers create new works, they release the potential of a tone in accordance with the available modes of perception and thinking.²³ In this sense, a composition is like an organism grown out of the tone as a seed, planted, grown and given form according to the possibilities of its soil and environment.

22 We will encounter such a mysticism alluded to by Schönberg in Chapter 6 on Scelsi.

23 In his article 'Schenker and Schoenberg on the Eye of the Genius', Matthew Arndt writes that Schönberg conceived of the genius 'as that ideal artist who first of all realizes an idea, where an idea is to be understood as a union of subject and object in a state of pure perception. This conception draws on and develops those of Goethe and Schopenhauer, particularly as Goethe's conception relates to his morphology' (Arndt, 2013, p. 61).

4.3.1 Musical Composition as an Elaboration of Forces

Neff shows how Schönberg appropriates Goethean concepts in his understanding of how elements in a composition are elaborations of the potential forces of a tone. As the first actualization of the plant for Goethe is the *Blatt* – the manifestation to which the plant will return in metamorphosed forms in all the different organs so that ‘all is leaf’ – for Schönberg, what he variously terms the *Hauptmotiv* and *Grundgestalt* is the first actualization of a piece. These terms are elusive, as they both refer to Goethe’s *Blatt* but have slightly different meanings. If we remember that the *Blatt* is not only the actual leaf but that ‘leaf’ which is also the proteus hidden in the plant, capable of metamorphosing into all the organs – stalk, root, flower, fruit – then we can understand the *Hauptmotiv* (tonal problem) and *Grundgestalt* (basic configuration) of a piece as referring to the factual motive of the piece and a more virtual ‘tonal problem’. In this sense, the *Grundgestalt* embodies an underlying configuration, a tonal problem that the composition will ‘solve’. In Neff’s table, the *Blatt* is accordingly paired with the concepts of ‘basic configuration’ and ‘tonal problem’.

Music’s formal development, Neff writes, is for Schönberg based on the premise that the tone ‘be made “capable of continuation” in time through structures analogous to Goethe’s *Blatt*’ (Neff, 1993, p. 416). The tone as a living being is an equilibrium of the contractive and expansive forces of Nature, and a musical composition works with these forces, actualizing them in progressive differentiations.

As the *Urpflanze* denotes the actualization of forces active in the continual formation and transformation of an initial *gestalt* (the ‘leaf’) into all the external differentiations of the plant, so a musical work is the growth and metamorphosis of a basic configuration embodying a ‘tonal problem’ into all the functioning parts of a musical organism: statements, contrasts, transitions, development sections, the coda and so on.

In this sense, a musical work is an artificial organism, a living being which grows organs as differentiations from the potential forces present in the tone. The developing form of the piece is a process that revolves around a basic problem, similar to how the plant reproduces the *Blatt* in ever-new stages of growth, formation and transformation. Accordingly, the concepts that Schönberg applies to the compositional process, again taken from Goethe, are *Bildung* and *Umbildung*, formation and transformation (Neff, 1993, p. 416).

4.3.2 The Configuration of a Musical System or Language's Tonal Forces

This development takes place in the field of tension between the centripetal and centrifugal forces of expansion and contraction, present in the tone as a seed. In Classical tonal music, the movements of expansion and contraction are expressed in the tension between the tonic and other chord functions. Modulation establishes other regions of the original tonic, with more or less distance. Neff shows how traditional key relationships are plotted on a chart of closer or farther distances from the tonic in Schönberg's analytic apparatus. These tonal relations are the artistically realized equivalent to the overtones in the tone, and as such, the harmonic system of colours, tension and release is an artistic elaboration of the potentiality of the tone.

We can assume that tonality is a function of the fundamental tone [tonic]: that is, everything that makes up tonality emanates from that tone and refers back to it. But, even though it does refer back, that which emanates from the tone has a life of its own – within certain limits; it is dependent, but to a certain degree also independent. What is closest to the fundamental has the most affinity with it, what is more remote, less affinity. (Schönberg, 1978, p. 150)

The field of tension that a composition lays out is based on the vital element of the tone as a part of Nature. The configuration of forces differs in music that does not build upon the harmonic language of (functional) tonality, but in any case, latent forces of movement are expressed in the actual musical flow. Music is like an organism that grows out of a seed, and the whole process is a progressive actualization of latent or virtual forces.

Therefore, for Schönberg, the tone is composed of potential and actual forces. This is the *Urphänomen* of the world of tones, termed *Monotonalität* by Schönberg, and it is the Idea-element of the actual tone. A composition provides the form and thereby elaborates and develops the tone's forces similarly to the growth and development of a plant. This development is conditioned by the musical language or system (for example, tonality).

Now, the *Anschauung* or intuitive contemplation of the Idea is said by Schönberg to be the inspiration or vision behind a composition, and according to Neff and Covach, this is also what he considered the goal of music. If music embodies an Idea, then the listener will apprehend it via the forces active in music. By its very nature, musical experience is an immersion into the tone's forces of contraction and expansion, elaborated in the formative process of composition.

Although not exactly the same, this process can be compared to how Goethe's intuitive contemplation (*Anschauung*) is contingent upon apprehending the level of contractile and expansive

forces by means of imaginative variation. This makes musical creativity and experience an avatar of Goethe's morphology, as Neff's conceptual table shows. In *Romantic Empiricism*, Dalia Nassar makes a similar argument for an intimate relationship between Goethe's faculty of intuitive judgment (*Anschauende Urteilskraft*, translated as intuitive contemplation by Severine Neff) and musical and artistic experience. Nassar compares the experience of form as *process* in music to what the Goethean imaginative faculty must attain with regard to form as a continuous metamorphosis (Nassar, 2022). Furthermore, this means that the paradox of non-chronological time at the heart of the apprehension of the Idea is also found in music.

4.3.3 The Paradox of Succession and Simultaneity in Schönberg's Thinking

John R. Covach writes that it is useful to think of Schönberg's organicism as having two aspects, operating according to a dynamic and a static model (Covach, 2017, p. 146). The dynamic model likens the work to a growing plant: a seed that contains the potential which unfolds chronologically, developing and varying itself by expanding into leaf, stalk and flower. The static model is that of a spatially present whole, a living body in which every limb and organ has its role and place serving the expression of the embodied being. Carl Dahlhaus writes that the musical Idea (*Musikalische Gedanke*) arises only by experiencing *both* the growing unfolding of music through time and an out-of-time experience of the whole. This paradox, he argues, constitutes the substance or hidden basis of Schönberg's musical thinking:

The concept of entelechy – the goal-directed process of development – and the notion of musical space in which all the motivic shapes and relationships that serve to present an idea are collected together in imaginary simultaneity: these two concepts, even though they contradict each other or seem to contradict each other, were in a similar way constitutive elements in Schoenberg's musical thinking.... To put into practice and make manifest in composition the dialectical unity underlying these divergent concepts is the idea which – as the perfect example of the problem that admits of no definitive solution – forms the substance or hidden basis of the principle of developing variation. (Dahlhaus, 1988, p. 133)

According to Covach, Dahlhaus would think of the musical Idea and the paradoxical experience it points to as concerned with a purely artistic and imaginary world, belonging exclusively to the work of art and the consciousness of the artist (Covach, 2000, p. 335). However, such a restriction would be inconsistent with Schönberg's Goethean thinking. Schönberg's investment in Goethean epistemology – where we find the same vitalist ideas of the contraction and expansion of forces in nature and art, the paradox of succession and simultaneity,

artistic inspiration, genius and *Bildung* – testifies to a thinking that regards the musical Idea in continuity with the forces of the world at large. This is additionally supported by the fact that Schopenhauer's conception of music as an experience in which we are brought into direct contact with the ontological, non-subjective Will was formative for Schönberg. A work of art is an original creation, but it is a creation that reveals something more than a hermetically closed universe. In composing, the composer gains access to inspiration, and as we have seen, for Schönberg, inspiration comes out of and reflects a creative Nature.

For Schönberg, a composition will therefore embody a musical idea both in the sense that the combination of all its elements forms its articulation through time and in the sense that this articulated unfolding refers to an out-of-time wholeness. This is expressed in the following passage from Schönberg's *Harmonielehre*:

Articulation (*Gliederung*) is necessary for every idea, the moment it is expressed; for, although we think an idea at once, as a whole, we cannot say it all at once, only little by little: we arrange the different components in succession, components into which we divide up the idea differently from the way we put it together, and thereby reproduce more or less precisely its content. In music we regard melodic or harmonic progressions as the components of an idea. That notion is correct, however, only as it applies to what is visible or audible, to those aspects of music that can be directly perceived by the senses; it applies only by analogy to that which makes up the actual content of a musical idea. But we may still assume that the notation successfully symbolizes the musical idea, and that the form and articulation manifested by the notes corresponds to the inner nature of the idea and its movement. (Schönberg, 1978, p. 289)

Schönberg here distinguishes between the Idea *in itself* and its actualization, between those aspects of music that can be directly perceived by the senses and others that go beyond the sensible. The melodic and harmonic progressions are components of the Idea reflected at the level of the perceptible. On this level, the Idea is only analogically present, Schönberg writes, but it is still a living symbol or image corresponding to the inner nature of the Idea and its movement. As there are both latent and actual movements in a tone, in a composition, there are both actual movements given to the ear and virtual latency. We experience both, even if only the actual can be directly perceived by the senses.

Before bringing Schönberg's Goethean thinking to his ideas about dodecaphony, we can make a first approximation between this account of the musical Idea and Deleuze's thinking.

The matrix of contractile and expansive forces that each composition poses and solves in its own way is the means through which the musical Idea is expressed and experienced. Music enacts the virtual Idea and the actual in continuous exchange and becoming: each phrase or motive is a contraction, a temporal synthesis constituting a past and future in relation to itself as the present. Along this chronological unfolding within an everchanging present, the musical organism grows and differentiates. One experiences the progressive unfolding of an Idea as a problematic field that is posed and solved as the tonal relations unfold and become comprehensible. Following the Deleuzian logic of time as synthesis, this successive unfolding of sound refers in each instant to a virtual reality: at the heart of the first sub-representative synthesis of time is the second synthesis, the 'static' time of *Aion*, the virtuality of the 'pure past' in which the Idea subsists as complexes of coexistence. Goethe's morphology, and thus also Schönberg's musical thinking, situates itself at this threshold where the imagination meets the sub-representative syntheses of time. As we saw in the first chapter, the becoming of time is grounded in the virtual. Like a lightning charge of internal difference, it pushes the present beyond itself. Between the virtual and the actual, music plays out as a differential play of forces, an intensive field of individuation constantly becoming, referring us simultaneously to the actualization of form and the sensation of intensive difference. We have seen above how Schönberg conceives of the tone (and music) as constituted from a play of forces and, in his thinking, the temporal development of musical form and a musical space of imaginative simultaneity are two equally constitutive elements. Dahlhaus conceives of this notion as a 'dialectical unity underlying these divergent concepts' and considers it the essence of Schönberg's thought (Dahlhaus, 1988, p. 133). We can thus see how Schönberg's poietic is based on a Goethean vitalism where the Idea in nature expresses itself as polarity and intensification, and the paradox of succession and simultaneity is constitutive of its imaginative apprehension or 'delicate empiricism'. In the following section, I suggest that Schönberg can be understood as seeking to acutely bring this paradox to expression through his creation of dodecaphony. This will mean taking seriously Schönberg's reference to Swedenborg in his explanation of dodecaphony and understanding the paradox as an intensive multiplicity of the virtual Idea – not dialectically, as an impossible unity, as Dahlhaus does. The creation of dodecaphony can then be understood as part of the process whereby, as Deleuze and Guattari put it, music 'enters the service of a virtual cosmic continuum' (Deleuze & Guattari, 2007, p. 95), seeking to express the intensive forces of the Idea.

4.4 Dodecaphonic Reflection of a Unitary Space

Schönberg's move from functional tonality to atonal music was a gradual process, leading him from the world of *Verklärte Nacht* (1899) to the new musical atmosphere of his *Second String Quartet* (1907–1908) and subsequent works. In 1921, after a prolonged period of contemplation on how to proceed with the new atonal or pantonal music, Schönberg is said to have told Josef Rufer: 'Today I have discovered something that will assure the supremacy of German music for the next hundred years' (Rufer, 1962, p. 45). Schönberg was referring to the invention of dodecaphony or twelve-tone music, which was a radical and important event in the development of twentieth-century music. It was a new system for tonal organization and a new way of thinking about musical form and material that would influence generations of composers.

The principle of this procedure is simple and well known: the twelve-tone composer forms a row of the twelve different tones in the chromatic scale, and this initial structure can then be varied by means of permutations. A retrograde, inversion and retrograde-inversion of the original row give four perceptibly different versions of the same underlying structure. These variations can then be transposed to all the chromatic steps, creating a raw material that can then be employed both horizontally (melodically) and vertically (harmonically) in the composition.

The technique of permutation was nothing new, and Schönberg discusses its use in previous works in his 1941 essay 'Composition with Twelve Tones' (Schönberg, 1950). The novelty of his approach was in the application of a twelve-tone row and the principal role the tones play in generating a musical material that replaces the system of tonal harmony.

Where did this new idea of serial organization come from, and what was its deeper motivation? In the above-mentioned essay, at least two aspects of the development of dodecaphony are identified. One is the historically oriented explanation of how the extended chromaticism of late Romanticism led to the emancipation of dissonance and atonality and how this created the need for a new framework to create larger forms. Schönberg writes about the need to find a unity and structural principle in the new situation in which he found himself after the break with functional tonality. However, his discussions also point out another motivation of central importance. Schönberg writes:

[T]he validity of this form of thinking [of permutations of a row] is also demonstrated by the previously stated law of the unity of musical space, best formulated as follows: *the unity of musical space demands an absolute and unitary perception.*

In this space, as in Swedenborg's heaven (described in Balzac's *Séraphîta*) there is no absolute down, no right or left, forward or backward. Every musical configuration, every movement of tones has to be comprehended primarily as a mutual relation of sounds, of oscillatory vibrations, appearing at different places and times. (Schönberg, 1950, p. 113)

The 'previously stated law of the unity of musical space' was formulated a few pages earlier, in these words:

THE TWO-OR-MORE-DIMENSIONAL SPACE IN WHICH MUSICAL IDEAS ARE PRESENTED IS A UNIT. Though the elements of these ideas appear separate and independent to the eye and the ear, they reveal their true meaning only through their cooperation, even as no single word alone can express a thought without relation to other words. (Schönberg, 1950, pp. 109, emphasis original)

What is Schönberg saying here? The permutation of a twelve-tone structure which yields the basic material for dodecaphonic music is given 'validity' by a law which states that the space in which the musical Idea is presented requires an absolute and unitary perception, and in this space and perception, there is no absolute up or down, back or forth, right or left. In effect, Schönberg seems to ground dodecaphonic music in an absolute, timeless experience of the musical Idea. 'Space' and Idea appear to be immanent in each other: the Idea does not appear 'within' this space any more than it constitutes it, and all representational coordinates 'implode'. On this basis, it seems that Schönberg is describing an out-of-time perception of the musical Idea as a spiritual experience.

Such an understanding is reinforced when we consider how Schönberg uses the example of Swedenborg's heaven as described in Balzac's novel *Séraphîta* to depict the perception and space of the musical Idea. Balzac incorporated Swedenborg's theosophical ideas into much of his writings. In his article 'Schoenberg and The Occult: Some Reflections on the Musical Idea', Covach identifies the following extracts from *Séraphîta* where Balzac renders Swedenborg's descriptions of his altered state of consciousness (Covach, 1992, pp. 114–115):

Under such conditions, you feel your perceptions developing, widening; the eyes of your mind reach to vast distances. There is, in truth, neither time nor place to the Spirit; space and duration are proportions created for Matter; spirit and matter have naught in common. (Balzac, 2010, pp. 243–244)

A few pages later in the novel:

all things were at once sonorous, diaphanous, and mobile; so that each interpenetrated the other, the whole vast area was unobstructed and the Angels could survey it from the depths of the Infinite. (Balzac, 2010, p. 257)

In Swedenborg's description, all empirical coordinates of experience are infinitized. Everything is at once sonorous, diaphanous and mobile – everything exists in everything else.

If we read Schönberg's presentation of the idea behind dodecaphony together with the extract from *Séraphîta*, the musical Idea is at once sonorous, diaphanous and mobile. As such, there can be no extensive differentiation of elements. In this sense, the musical Idea is not yet diversified into different elements but exists rather as a continuous intensive multiplicity where everything exists in everything, differentiating without being externally different.

If this continuum is the virtual nature of the musical Idea, then the use of permutations can reflect or 'correspond' to this space and perception:

From the basic set, three additional sets are automatically derived: 1) the inversion; 2) the retrograde; and 3) the retrograde inversion. *The employment of these mirror forms corresponds to the principle of the absolute and unitary perception of musical space.* (Schönberg, 1950, pp. 115–116, my emphasis)

With dodecaphony, Schönberg can be understood as trying to establish a correspondence between 'the principle of the absolute and unitary perception of musical space' and the way the set of twelve tones is employed. In other words, the underlying structure permeating the actual tonal relations is modelled on the principle of a virtual or spiritual Idea. As opposed to functional tonality, which instantiates a reference point (the tonic) to which forces are related, there is no such reference point in the raw material of a twelve-tone composition, no absolute up or down, right or left, forward or backward. The same structure (tone-row) can be laid out in various ways, as a melody which can be reversed or inverted or as harmonic blocks. In this way, there is no definite up or down, beginning or end. This imposes upon the musical language characteristics comparable to that which Schönberg refers to as the unitary musical space and perception exemplified by Swedenborg's experience.

However, the point of this discussion is not only to identify a correspondence between ideas but to see this as part of the Goethean thinking developed above. If we consider Schönberg's ideas about a unitary musical space and perception, the musical Idea, and the tone as a compound

of contractile and expansive forces in light of Goethe's morphology, then the image of music as transcendental empiricism – that is, as a function of the intensification and virtualization of experience – can emerge.

As in Goethe's morphology, aesthetic or musical experience can be understood as concerned with reaching an intuitive perception of the Idea. As we saw above, the Goethean apprehension of the Idea in Nature requires a metamorphosis of temporality, such that succession is apprehended as simultaneity and simultaneity as succession, something which can perhaps be characterized as the spatialization of living time. Schönberg's reference to Swedenborg corresponds to and can be read in this light. Furthermore, for Goethe, the living imaginative apprehension of the Idea takes place in a medium of contractile and expansive forces, such that the imagination itself undergoes a metamorphosis. Schönberg considers the tone a vital force and music a play between the expansive and contractile forces developed from it. The listening imagination is thus acutely inserted into this field of individuation through music and, as argued in Chapter 3, brought in close proximity to the sub-representative forces of time.

This is a general trait of music, but whereas in tonal music the forces of expansion and contraction play out chronologically, in atonal music and dodecaphony these forces appear simultaneously. Matthew Arndt explains how Schönberg conceived of this when he writes that in

a piece of tonal music for Schoenberg, there is 'a cyclical harmonic motion, which goes out from the ground tone and returns to it'. In a piece of non-tonal music, a state of equilibrium is reached, in which the music moves equally toward the ground tone and toward the other tones. In any case, the music reaches a 'balance of . . . centrifugal and centripetal forces', either successively or simultaneously. (Arndt, 2013, p. 143)

Abandoning the relationships between centre and periphery, home and away, and to some extent chronological development, dodecaphonic music undergoes a deterritorialization and effectuates a spatialization of time. Dodecaphony not only inhibits a gravitational reference point but also organizes the elements that constitute this space according to the principle of the absolute and unitary perception of musical space.

In this way, Schönberg can be understood as seeking to create music which expresses the nature of the musical Idea and its apprehension more directly, thus affecting the musical experience. In this interpretation, Schönberg's thinking about music is grounded in Goethe's morphology. However, as was pointed out in Chapter 2, Goethe's image of thought is characterized by differential processes, regarding 'form' as a continual metamorphosis and phenomena in

actual nature, such as colours, as effects of differential relations. Goethe's vitalist thought, marked by its occupation with the interplay of the forces of contraction and expansion and with polarity and intensification as a general principle of Nature's creativity, is a Spinozism not far from Deleuze's. In the remainder of this chapter, I bring the interpretation developed so far into conversation with Deleuze's conception of the Idea and how it traverses the virtual, intensive and actual. In this way, the vitalist morphology of contractile and expansive forces that Goethe speaks of and that I have argued can illuminate Schönberg's ideas can also be extended to Deleuze's notion of the Idea as an event of actualization in a field of intensity.

4.4.1 The Idea and Structure

Not unlike Schönberg, with his supersensibly apprehended Idea, Deleuze conceives of Ideas as virtual 'complexes of co-existence' (Deleuze, 1994, p. 186). From Goethe and Swedenborg, there is thus a line of thought that can be stretched through Schönberg and into a structuralism reborn from Deleuze's Bergsonian virtual. In this Deleuzian structuralism, the actual structures that emerge from Ideas are grounded in virtual forces. They are not ideas in the sense of something subjective-imaginary or abstractions from the actual-real:

The virtual has an ideality that is proper to it, but which does not merge with any possible image, any abstract idea. We will say of structure: real without being actual, ideal without being abstract. This is why Levi-Strauss often presents the structure as a sort of ideal reservoir or repertoire, in which everything coexists virtually, but where the actualization is necessarily carried out according to exclusive rules, always implicating partial combinations and unconscious choices. To discern the structure of a domain is to determine an entire virtuality of coexistence which pre-exists the beings, objects and works of this domain. Every structure is a multiplicity of virtual coexistence. (Deleuze, 2004a, p. 179)

How does Deleuze think about the relationship between virtual and actual structures, between the Idea and its incarnation in actual works and states of affairs? Deleuze delineates three moments that occur during the process of actualization, corresponding to the Idea or structure as a *virtual*, *intensive* and *actual* reality.

The first is an *undetermined* moment of the Idea, which refers to its state as a virtual reality, as part of a complex of coexistence. It is differential and real but cannot be determined or represented. Next, the moment of *determinability* belongs to an intensive state where difference relates to difference, that is, a field of reciprocal determinations between elements in a system. Finally, the moment of *determination* is the Idea's instantiation as actual objects and

concepts, completed works in nature and human activity. Individuation thus proceeds from an undetermined co-existence of Ideas (virtual structure) through a field of individuating differences to the constituted individual (actual structures).

Deleuze finds a model for this process in differential calculus, the procedure used to, for example, measure points (determinations) on a curve. For instance, in the relationship between space (y) and time (x) in the measurement of velocity, speed is the distance travelled over a period of time. If velocity is not constant, it must be measured at a particular point. Finding a gradient that has a tangent at this particular point and measuring this line will give us the speed at this particular moment. However, if we aim to measure an instantaneous and not an average value, we lose any actual value to measure with: the quantities of space (y) and time (x) will have to diminish until they become infinitely small. The relationship between these infinitesimals, written as ' dx ' and ' dy ', is a differential.

Now, the question becomes how to interpret the status of this infinitesimal. Does it refer to an actual value, a real but infinitely small magnitude, or is it a purely nominal notion? For Deleuze, the differential is neither an actual nor a purely imaginary magnitude but signifies a virtual reality and an intensity that prompts a change in a system – acceleration, for example. It is thus a limit where intensity is no longer attributable to actualities or can be understood as energy referable to discrete and actual magnitudes; quantity itself becomes continuous – what Deleuze calls intensive quantity.

The purely virtual nature of Ideas is exemplified in this interpretation of the calculus by the fact that its elements are purely undetermined, as infinitely small: dx , dy . Nevertheless, when brought together in a differential equation (dx/dy), they constitute a differential relation of determinability without expressing concrete values. This represents a field of differentiation, of individuation based on reciprocal relations of difference. This moment of the Idea represents the intensive state of actualization, its process of being determined. When we finally specify a point and assign a value, full determination emerges, corresponding to the full actuality of a being.

The symbol dx appears as simultaneously undetermined, determinable, and determination. Three principles which together form a sufficient reason correspond to these three aspects: a principle of determinability corresponds to the undetermined as such (dx , dy); a principle of reciprocal determination corresponds to the really determinable (dy/dx); a principle of complete determination corresponds to the effectively determined (values of dy/dx). In short, dx is the Idea – the Platonic, Leibnizian or Kantian Idea, the 'problem' and its being. (Deleuze, 1994, p. 171)

Because the Idea encompasses all these moments – traverses the distance between the virtual and the actual as the process of becoming and actualization – the Idea is a problem: one continually being solved and resolved.

This sketch of Deleuze's Idea can be grafted onto Schönberg's conception of the musical Idea as belonging at one and the same time to three corresponding moments. The first, the spiritual state as an infinite potentiality, is found in the reference to Swedenborg. The second refers to the musical system or language reflecting or incarnating a segment of this potentiality in relations that are reciprocally determining each other – 'Every musical configuration, every movement of tones has to be comprehended primarily as a mutual relation of sounds, of oscillatory vibrations, appearing at different places and times' (Schönberg, 1950, p. 113), and finally, the third is the concrete and actualized musical works and events.

From this perspective, we can understand dodecaphony is a system aiming to reflect the intensive multiplicity of the Idea's actualization. Between the purely virtual ideality and the actual is the individuating field of difference as differences in intensity. Dodecaphony is thus understood as a musical language of difference, functioning not with regard to the engendering of form but with regard to the creation of an intensive field of difference. In this sense, the process of musical determination (the actual form we hear) is turned back towards the field of determinability. Between the virtual Idea and the actual form stands the field of differentiation where difference relates to difference. This is a field of individuation rather than individuated forms. In this interpretation, the dodecaphonic logic seeks to engender such a field of intensive differences in a complex material where, as Deleuze and Guattari say, the central goal is no longer to give form to matter but to create a complex material and the forces it releases.

4.4.2 From Matter–Form to Material–Force: Boulez and Serialism

We can now consider dodecaphony in light of Pierre Boulez's critique of Schönberg in the famous article *Schönberg is Dead* (Boulez, 1968). Here, Boulez writes about how, after creating the dodecaphonic principle, Schönberg went on to subject this new musical language to Romantic rhetoric and even older ways of thinking about form. Boulez sees this as an inability to follow up on the consequences of discovering the serial principle. If Schönberg imposed a serial logic upon sound that produced a field of difference on the one hand, he continued to subject this new musical material to organic and Classical ideas of form on the other. Schönberg's own dodecaphonic compositions still develop by means of thematic work and counterpoint, and we also find Classical distributions of elements, such as melody and accompaniment. The works are also often set within traditional forms, such as the suite, sonata

and so on. Boulez therefore claims that Schönberg effectuated one of the ‘most important revolutions that has ever affected the musical language’, but that he also had a

profound misunderstanding of serial FUNCTIONS as such, functions engendered by the very principle of series. ... Schönberg employed the series as a smaller common denominator to assure the semantic unity of a work, but he organized the language elements thus obtained by a pre-existing rhetoric, not a serial one. (Boulez, 1968, pp. 268, 274)

According to Boulez, Schönberg ‘confused’ serial organization and thematic writing, and on this confusion rests the mixture of Classical form and a radical, novel sound universe. If Schönberg was initiating the virtualization of music, his traditional understanding of form, content, theme and development still fettered the new musical language to a representational way of thinking.

In his book *Music After Deleuze*, Edward Campbell shows how, for Boulez, the potential of Schönberg’s revolution was to be found in Anton Webern (Campbell, 2013, p. 11ff). If Schönberg used the pre-compositional material of the row and its permutations as raw material for thematic work, Webern developed and differentiated the elements of this pre-compositional material in such a way that the ‘theme’ was virtualized. Campbell writes that Boulez considered Webern’s great achievement to have been the superimposition of ‘absolute unity and constant variation simultaneously within his material’ (Campbell, 2013, p. 14). The consequence of this seemingly contradictory operation is that unity or thematicism is no longer found in the actual musical material, which rather consists of continuous change and metamorphosis, but as a virtual reality. As a virtual idea, the theme is differentially present in the continually changing material. As Campbell notes, Webern himself also refers to this:

In general, the twelve-tone row is not a ‘theme’. But thanks to the unity [*Einheit*] now accomplished by other means, I can also work without thematicism [*Thematik*], that is, much more freely: the row secures for me the coherence [*Zusammenhang*]. (Webern, 1960, pp. 59–60)

Interestingly, Webern also refers to Goethe in this regard, explicitly tracing his ideas back to the *Metamorphosis of Plants* – a book he carried with him on his wanderings in the Alps – and the idea of the *Ur-Pflanze*:

Now you see what I am aiming for – Goethe’s *Ur-Pflanze*: The root is in fact no different from the stalk, the stalk no different from the leaf, and the leaf no different from the flower: variations of the same idea [*Gedankens*]. (Webern, 1960, p. 56)

Boulez writes about the relationship between the virtual Idea and the development of musical material in Webern as one where ‘ahead of any composing, there are principles of generation: symmetries, groupings, densities, repetitions. This can be called a thematic virtuality’ (Boulez, 2018, pp. 168–169). Boulez goes on to speak about the perception of the Idea in and through the musical material in a way that strongly resonates with the Goethean morphology developed in this chapter. For Goethe, a continuous imaginative variation brings forth the apprehension of the Idea as present in all stages of growth but irreducible to any of its actual instantiations. Similarly, for Boulez, the musical Idea is perceived through the actual musical material without itself figuring as actuality:

The Idea does not exist as a perceptible object but is revealed through specific actualisations in works. Thus in his *Variations*, op. 27, symmetry – of figures, register, duration – is the fundamental, figural Idea. The intervallic series is a powerful mediator of this Idea, but it is not the only one. The Idea can be perceived only through its metamorphoses. The title ‘Variations’ is therefore not overturned, but it must be understood in a less ‘realistic’ sense. In my view, Webern’s central achievement remains the way he moved from the concept of real theme to virtual theme. (Boulez, 2018, pp. 168–169)

In *Boulez, Music and Philosophy*, Edward Campbell writes about how Boulez’s own music and compositional practice can be understood as expanding this notion of the virtual in music (Campbell, 2010). If the idea of a virtualization of musical elements can be followed from the Goethean epistemology and morphology via Schönberg and Webern into Boulez and serialism, a provocative and interesting line of development could be suggested: the developments of dodecaphony in the second Viennese school and the serial experiments that followed, as well as the waves it spurred, could in this perspective be considered partly rooted in Goethe’s vitalist botany. Nonetheless, the central aspect of this chapter has not been to construct such a historical line but to explore the idea of music as part of transcendental empiricism through Schönberg’s Goethean thinking. I have brought Schönberg’s Goethean image of thought in proximity to Deleuze’s conception of the Idea and Deleuze and Guattari’s notion of intensive difference. Music can bring about an encounter with intensive difference *in itself*, they claim, and as shown in Chapter 2, this encounter can raise sensibility to its transcendent exercise. Their claim that the music of the Modern Age – which in this context can be roughly equated with Modernist music from the twentieth century – makes possible a direct encounter with intensity is thus understood according to the idea of music creating a field of intensive differences. This musical language was understood as modelled on the virtuality of the Idea – referred to by Schönberg via Swedenborg – where all components are coexisting

and in continuous variation. The logic of the serial language is thus understood based on the virtual Idea as intensive multiplicity, giving rise to a musical material of intensive differences.

By placing all its components in continuous variation, music ... enters the service of a virtual cosmic continuum ... This ferment came to the forefront and made itself heard in its own right; and, through the molecular material thus wrought, it made audible the nonsonorous forces of the cosmos that have always agitated music – a bit of Time in the pure state (Proust), a grain of absolute Intensity. (Deleuze & Guattari, 2007, pp. 95–96)

4.5 Summary

This chapter has argued that a Goethean image of thought is present in Schönberg's ideas and musical thinking, specifically regarding his ideas about dodecaphony. In this interpretation, dodecaphonic music aspires to emulate an intensive space and widen musical sensibilities towards the musical Idea, understood not as a representation or an actuality but as a virtual continuum of forces. Goethe's notions of the intuitive perception (*Anschauung*) of the Idea or *Ur*-phenomenon and of natural phenomena as constituted from a polarity of forces (contraction and expansion) were presented and followed by a presentation of Schönberg's thinking where many converging notions were found. I then brought this to bear on Deleuze's tripartite Idea wherein the virtual, intensive and actual are described as a continuous process of actualization and deactualization between a virtual co-existence and chronological time. I argued that Schönberg's ideas about dodecaphony can be understood as an attempt to create music which produces a more immediate encounter with intensive forces. This led to reflections on Boulez's critique of Schönberg and how Webern and Boulez's serial development could be said to draw out the consequences of Schönberg's creation of dodecaphony in the development of serial thinking. This is a judgement based upon Boulez's own interpretation, which Deleuze and Guattari seem to reflect when they write that music came in the service of a virtual cosmic continuum. This interpretation suggests a line running from Goethe's morphological monism through Schönberg's thinking and into the serialism of the twentieth century. Deleuze's concepts of difference and virtual Ideas resonate with this line of thought, and by this route, I argued that it is possible to see Schönberg and his vision of music as belonging to the project of transcendental empiricism.

5 Olivier Messiaen: Dazzlement and the Directional Meaning of Music

Expanding perception means making forces that are ordinarily imperceptible sensible, resonant (or visible). These forces are not necessarily time, of course, but they mix and combine with the forces of time. ‘Time is not usually visible ...’ We easily and sometimes painfully perceive things in time. We also perceive the form, units and relationships of chronometry, but not time as a *force*, time itself, ‘some time in its purest form.’ Using sound as the intermediary that makes time sensible, the Numbers of time perceptible, organizing the material to capture the forces of time and make them into sound: that is Messiaen’s project. (Deleuze, 2007, p. 303)

In this chapter, I turn to the poietics and thinking of Olivier Messiaen to explore how his ideas can be understood as concerned with creating music that can give rise to intensive forces. I focus on two main ideas: the virtuality of time made palpable through rhythm and the intensive difference behind the sensible made perceptible through experimentation with sound and colour. These two accounts lead to what appears as the summit of musical experience, which Messiaen terms dazzlement and suggests is the directional meaning of music.

As in the previous chapter, my approach is to use the ideas of the composer as material to develop an outline of an image of thought. Messiaen’s thinking is characterized by the idea of music as a way to experience the ‘end of time’ according to the Christian idea of resurrection. Messiaen speaks of rhythm as a means to prepare for and even experience the time of resurrection in advance. Furthermore, he speaks of sound-complexes as bound up with colours, leading to an experience of dazzlement in which time becomes space and space becomes a superimposition of durations. For Messiaen, dazzlement names an event of a breakthrough towards the beyond, and we will see how he describes this both explicitly and implicitly.

Sander van Maas has written a comprehensive study of Messiaen’s musical thinking in a religious context, focusing on the concept of dazzlement in relation to its theological influences (van Maas, 2009). Deleuze and Guattari are absent in his study, except for a short comment in the epilogue. In this chapter, van Maas’s emphasis on dazzlement as the central topos in Messiaen’s thinking is taken up but developed in a different direction and context. Whereas van Maas’ study relates Messiaen’s ideas to the theologian Hans Urs von Balthasar and the phenomenologist Jean-Luc Marion, the present chapter reads Messiaen in relation to Deleuze and Guattari’s transcendental empiricism. The theological horizon will be approached via Giorgio Agamben’s philosophical reading of St. Paul (Agamben, 2005). In addition to this

philosophical approach to Messiaen and his ideas, I rely on several secondary sources that discuss his basic compositional techniques. The presentation of these technical procedures relies primarily on the work conducted by Darbyshire (1998), Fabbi (1998), Johnson (1975), and Wu (1998), as well as Messiaen's own words. My discussion of Messiaen's construction of chords as a means of producing microperceptual intensity is also indebted to Benitez (2002), who has shown how simultaneous contrast functions as a structural principle in Messiaen's music.

The chapter begins by introducing the concept of dazzlement. Then, I continue to a philosophical reading of Messiaen's use of rhythmic technique in relation to his preoccupation with the end of time.²⁴ I seek to delimit a concept of this static time in relation to the Christian idea of resurrection and Messiaen's claims about a possible mystical experience of this event. In his theological universe, the time of resurrection is a post-mortem event one undergoes if one shares in Christ's resurrection. Messiaen claims that the musician can prepare us for this experience by working on rhythm. To develop a philosophical understanding of this claim, I will turn to St. Paul's idea of resurrection as 'the time of the now', as found in Giorgio Agamben's reading of this phrase (Agamben, 2005). Agamben's reading presents Paul's idea of resurrection as the ultimate event of time itself, not only at the end of time but as the very heart of time, which makes it possible to read Messiaen's claim in a philosophical context.

I then turn to Messiaen's ideas of sound-colour. First, I present a brief sketch of Messiaen's modes, which are foundational to his concept of coloured music. Then, I present Messiaen's idea of the correspondence between sound and colour based on the phenomena of natural resonance and complementary colours. In *Conférence de Notre Dame*, Messiaen implicitly outlines a trajectory that takes us from normal sense-perception via the subtleties of after-images and overtones to dazzlement as a passage out of time. In discussing these phenomena, Messiaen combines contemplative practice and musical experience while claiming an intimate relationship between music and these phenomena. Messiaen's engagement with the complementary colours of after-images and the resonance of overtones will be understood as bringing us to a liminal field close to what Deleuze calls microperception. Because microperceptions are the genetic elements of ordinary perceptions, this liminal field brings consciousness closer to the forces behind normal perception. Deleuze and Guattari's understanding of perception as contractions of a non-organic vitality can thus be applied to Messiaen's practice, both as a basis behind his compositional techniques and as a way to grasp the significance of his preoccupation with this domain of sensation.

24 About his work with the *Quatuor pour la fin du Temps*, Messiaen says that he wanted to 'to justify my desire for the cessation of time ... for the ending of concepts of past and future: that is, for the beginning of eternity' (Pople, 2001, p. 13).

On this theoretical basis, I portray Messiaen's ideas about rhythm and harmony as techniques aimed towards producing 'dazzlement'. I bring out some of Messiaen's descriptions of his own experience as well as his implicit references to the mystical nature of dazzlement. The religious horizon of Messiaen's dazzlement and breakthrough towards the beyond is thus considered according to Deleuze and Guattari's philosophical apparatus, and I ultimately suggest that Messiaen's 'breakthrough' and 'dazzlement' are another approach to music as part of transcendental empiricism.

5.1 The Dazzling Charm of Impossibilities

In his conversations with Claude Samuel, Messiaen says his music is constructed from techniques that endow it with 'an occult power, a calculated ascendancy, in time and sound' (Samuel, 1976, p. 22).²⁵ This is what he calls 'the charm of the impossible', which Messiaen says 'has dominated my whole life as a composer' (Samuel, 1976, p. 21).²⁶ In his treatise *The Techniques of My Musical Language*, Messiaen explains:

This charm, at once voluptuous and contemplative, resides particularly in certain mathematical impossibilities of the modal and rhythmic domains. Modes which cannot be transposed beyond a certain number of transpositions, because one always falls again into the same notes; rhythms which cannot be used in retrograde, because in such a case one finds the same order of values again – these are two striking impossibilities. (Messiaen, 1956, p. 13)

As we will see, Messiaen organizes the elements of his music according to the idea of sound as colour and time where music seeks to project a virtual space of intensive movements. This is supposed to be effectuated by the 'charm' experienced through the way the elements are organized, and which according to Messiaen affects the listener directly as 'an occult power, a calculated ascendancy in time and sound' (Samuel, 1976, p. 22). About this affective influence Messiaen writes that the listener

will not have time at the concert to inspect the nontranspositions and the nonretrogradations, and, at that moment, these questions will not interest him further; to be charmed will be his only desire. And that is precisely what will happen; in spite

²⁵ Ian Darbyshire writes that "calculated ascendancy" is a weak translation of the original French "*une entreprise chiffrée*," the meaning of which is difficult to encapsulate in one phrase but suggests a capture of potentiality by means of numeration' (Darbyshire, 1998, p. 36).

²⁶ The book was originally published in 1967.

of himself he will submit to the strange charm of impossibilities: a certain effect of tonal ubiquity in the non-transpositions, a certain unity of movement (where beginning and end are confused because identical) in the nonretrogradation; all things which will lead him progressively to that sort of *theological rainbow* which the musical language, of which we seek edification and theory, attempts to be. (Messiaen, 1956, p. 63)

The effects are not supposed to be heard analytically, but the listener will be charmed by the music. In other words, the manner in which listening contracts time in such rhythms works subliminally and this is meant to create a 'theological rainbow.' If we consider the symbolic meaning of the rainbow in theology, the occult power of time and sound gain a deeper resonance, suggesting a musical 'bridge' into a spiritual experience. We find this explicitly stated in a hand-written note for a programme booklet where Messiaen writes about music as a spiritual illumination. This, he says, is perhaps the directional meaning of music:

Music is a perpetual dialogue between space and time, between sound and colour, a dialogue which leads into a unification: Time is a space, sound is a colour, space is a complex of superimposed times, sound-complexes exist at the same time as complexes of colour. The musician who thinks, sees, hears, speaks, is able, by means of these fundamental ideas, to come closer to the next world to a certain extent. And, as St. Thomas says: music brings us to God through 'default of truth,' until the day when He Himself will dazzle us with 'an excess of truth.' That is perhaps the significant meaning – and also the directional meaning – of music ... (Messiaen, 1986c, p. 10)

Dazzlement is the name Messiaen gives to this experience, a concept which figures as the central topos of his musical thinking. In his study of dazzlement and the music of Messiaen Sander van Maas (2009) notes that even if dazzlement is easily associated with the sense of sight, it can involve any sense as well as the experience of thinking. Dazzlement, van Maas writes,

always involves an overwhelming, either of the senses (especially the eye and the ear, including the inner eye and ear, which then implies a form of blinding) or of thought (which implies a form of vertigo) but in most cases both meanings are implied. (van Maas, 2009, p. 32)

Messiaen developed his ideas about dazzlement and music in a lecture published as *Conférence de Notre Dame* (1986a). The lecture begins with an outline of the various types of music in the way they express the sacred, catalogued in Messiaen's universe as *Liturgical music* (which

is Gregorian chant), *Religious music* (which is all music that ‘approaches with reverence the Divine, the Sacred, the Ineffable’ (Messiaen, 1986a, p. 69)), and finally the music of sound-colour or dazzlement. This is a music which not only expresses the sacred, but which seeks to lead to a direct experience of it. Here musical experience transforms into a spiritual experience. Dazzlement is thus a notion that couples music to an outside: an extra-musical dimension of musical experience that is still at the heart of music. In Messiaen’s words, it is a music that seeks to create a ‘break towards the beyond, towards the invisible and unspeakable, which may be made by means of sound-colour, and is summed up in the sensation of dazzlement’ (Messiaen, 1986a, p. 57).

In this sense, Messiaen implicitly relates himself to the mystical vein of Christianity. It is true that, when asked, Messiaen denied being a mystical composer, replying that he was a *theological* composer. However, in light of his concept of dazzlement, this theology would have to belong to a creative, or so called, mystical theology – a theological operation that relies not only on scriptural dogmatism and its tradition, but also on that extraordinary experience that creates and forms theology in the first place.²⁷ Attempting to create a music of dazzlement is thus a way of making musical experience into an avatar of spiritual perception.

In a lecture given in Kyoto, Japan (Messiaen, 2011) Messiaen discussed particular passages that he said were musical instantiations or presentations of dazzlement. Here he singles out five passages from *La Transfiguration de Notre-Seigneur Jésus-Christ* and, in lesser detail, the final act of his opera *Saint François d’Assise*. The passages from *La Transfiguration* are Part VIII, ‘Et ecce vox de nube...’; Part IX, ‘...quia solus est’; Part XII, ‘Gloria in excelsis Deo!’; Part VII, ‘Choral of the Holy Mountain’; Part XIV, ‘Choral of the Light of Glory’.²⁸

Both *La Transfiguration* and the final scene from *Saint François d’Assise* thematize dazzlement even in their titles – as transfiguration, as ‘La mort et la nouvelle vie (Death and New Life)’ as the final scene of *Saint François* is called. But with his compositional techniques and aesthetic orientation, all of Messiaen’s music can be understood as a music of sound-colours that attempt to bring consciousness closer to this event of dazzlement. In this sense, dazzlement concerns not only specific passages in musical works but his fundamental approach to music and what its function can be. In this connection Messiaen’s claim that breakthrough and dazzlement can be *made* by means of sound-colour (and rhythm) is provocative and interesting. In the

27 In Christian theology the tradition of the spiritual senses goes back to the third Century church-father Origen, who stresses that the receptivity for spiritual perception depends also on regular contemplative practice, and not only on grace. (Gavrilyuk & Coakley, 2012, p. 2)

28 Sander van Maas (2009) has analysed and explored these passages in depth. See also Cheong, 2013. For a presentation of Messiaen’s use of simultaneous contrast as compositional technique in his opera *Saint François d’Assise* see Benitez 2002.

following I will approach this 'constructivist' claim, reading Messiaen's ideas as concerned with the creation a transcendental empiricism through a musical encounter with intensive forces and virtual time.

5.2 Rhythm as Soteriological Machine

In the following section, I explore what concept of time can accommodate Messiaen's claims about music and dazzlement and how this idea of time can, in turn, be related to Deleuze and Guattari's conceptual apparatus. Thus, I aim to understand Messiaen's poetics in the context of transcendental empiricism. The relationship between Messiaen's thinking about time and Deleuze and Guattari's philosophy has been discussed several times before, notably by Ronald Bogue (2003) and Edward Campbell (2013). Bogue writes that Messiaen's aspiration of overturning the sense of forward motion and creating a "timeless time," ametrical, nonteleological, reversible and unlimited' is comparable to 'the time of becoming' discussed by Deleuze and Guattari (Bogue, 2003, p. 28). Similarly, in *Music After Deleuze*, Campbell suggests that Deleuze's distinction between *Chronos* and *Aion* – or the striated and the smooth as this distinction appears in *A Thousand Plateaus* – is a fruitful way to approach Messiaen's thinking about time. However, referring to a remark made by Steven Shaviro, Campbell writes that Deleuze would reject any Platonic distinction between time and eternity, flux and permanence, or earth and heaven (Campbell, 2013, p. 115). This distinction is precisely the basis of Messiaen's musical conception of time:

Messiaen's twin conceptions of time, the progressive and the static, embody the contrast of time and eternity or the earthly and the eternal, and static music is said to suspend our normal experience of the passage of time, communicating a sense of the eternal which is beyond time. (Campbell, 2013, p. 115)

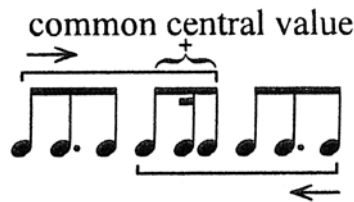
Campbell's answer to this criticism – which, as he says, Deleuze and Guattari do not raise – is that the two temporalities of the progressive and static often appear mixed. While this may be true, the question still stands as to how Deleuze and Guattari's conceptual apparatus can function with regard to Messiaen's musical thinking. How should one think about this mixture? Furthermore, what exactly is the idea of *communicating* a sense of the eternal beyond time in and through the quintessential temporal art of music? The idea of ending time through musical creation and the manipulation of time is central to Messiaen's musical thinking. If we are to understand Messiaen's idea about rhythm as a means of creating dazzlement and breakthrough rather than referring to an idea of the beyond by means of a psychological

experience, then we must understand his ideas about how rhythm can function and determine what concept of time this static temporality entails.

5.2.1 Non-retrogradable Rhythms and the Time of Resurrection

One of the principal techniques that Messiaen claims create a static time is non-retrograde rhythms. These are said to effect ‘a certain unity of movement (where beginning and end are confused because identical)’ (Messiaen, 1956, p. 63) and so transform the sense of chronological time. As implied in Messiaen’s description, non-retrogradable rhythms are rhythmic palindromes – rhythms that are the same when read in reverse. They are organized around a free central value common to both halves, creating structures which mirror nature; like our bodies, they are organized around a central axis with the same pattern unfolding symmetrically on each side – two hands, to feet, two eyes. As Messiaen points out, nature is full of non-retrogradable rhythms, such as butterflies, leaves or the human figure.

Messiaen discovered non-retrogradable rhythms in his studies of ancient Hindu rhythms found in the thirteenth century treatise *Sāṅgīta-ratnākara* of Śārṅgadeva, and in his study of ancient Greek meters (Wu, 1998, p. 97). Rather than cutting up time through metric divisions, rhythms are generated by manipulation of a single basic unit, ‘the *chronos protos* in Greek and the *matra* in the Hindu system’ (Weber, 2007, p. 34). This way of proceeding creates rhythmic complexity and the only way to modify and vary these rhythms is by addition or subtraction (Example 3).



Example 3: Composite nature of non-retrogradable rhythms. From Wu 1998, p. 97.

This principle of construction prohibits a regular pulsating beat. There is no underlying beat-pattern that functions as a measure or grid to which the durations are subjected. Instead, this relationship is inverted. In playing such rhythms Messiaen writes that the musician may begin by subdividing the duration of the notes to the smallest common value, but practice must bring about the feeling for each duration, thus releasing the feeling for rhythm from an underlying counted unit. This brings about a subtle sensitivity for the rhythmic dimension as duration.

The principle of non-retrogradability makes rhythm into cells that undergo a process of dilation and/or contraction: the only way rhythm can be varied is by adding or subtracting a value. Messiaen speaks of these rhythms as time returning to itself where there is 'a certain unity of movement where beginning and end are confused because identical' (Messiaen, 1956, p. 63). Considered from the middle of a non-retrogradable rhythm, one will always repeat its immediate past in reverse. It is the symmetry that these rhythms contain that supposedly make them turn back in on themselves and work from within the flow of time to 'end time'. It is a question as to whether this unity and confusion of beginning and end in fact does happen experientially as Messiaen claims, but the idea is clearly at the heart of his musical thinking.

Messiaen also claims that this confusion of beginning and end, past and future, has to do with a transformation of memory.

The musician possesses a mysterious power: by means of his rhythms, he can chop up time here and there, and can even put it together again in the reverse order, a little as though he were going for a walk through different points of time, or as though he were amassing the future by turning to the past, in the process of which, his memory of the past becomes transformed into a memory of the future. (Rössler, 1986, p. 41)

In effect, Messiaen is using rhythm in an attempt to subvert time from within into a kind of simultaneity, a kind of temporal space. Non-retrogradable rhythms are said to chop up time into various short and long durations that can be put together again in reverse order and, as such, have a transformative force. Messiaen follows Bergson in that the reality of time can be found in musical experience, and that our sense of a homogeneous time encompassing musical experience is a derivative notion, not the primary and objective time. As such, music is not in time, but time is in music. In Messiaen's words 'music does not unfold in a previous time, in a "physical" time, but ... creates its own time that expands, contracts, colors and qualifies' (Messiaen, 1998, p. 34). For Messiaen the reality of time is heterogeneous and qualitative, and is found through the experience of music (Messiaen, 1998, p. 21).

There are thus three dimensions of time at play here: a unidirectional chronological succession in which music happens and which belongs to normal experience of time; the psychological experience of rhythmic durations that can be manipulated, and which is the properly musical experience of time as rhythmic flows; and, lastly, the cessation of chronological and psychological time in a conversion of time into virtual space. The mysterious power of the musician is said to be able to bring about this conversion. These different dimensions of time are more clearly brought out in the following passage from volume 3 of *Traité de Rythme, de Couleur et d'Ornithologie*.

Regular time moves towards the future – it never goes backwards. Psychological time, or time of thought, goes in all directions: forward, backwards, cut in pieces, at will...In the life of the Resurrection we will live in a duration malleable and transformable. The ability of the musician, who retrogrades and permutes his durations, prepares us, in a small way, for that state. (Messiaen, 1996, pp. 353–54. Quoted from Taylor, 2010, p. 261)

We have here regular time, psychological time and the duration of the resurrection, and the musician is said to be able to prepare us for this malleable and transformable time. How are we to understand this concept of a time of resurrection and its functioning in music?

The concept of resurrection belongs to life after death, and as such to eternal life. But by bringing in the concept of a malleable transformable duration as the time of resurrection, Messiaen can be read as not only putting into play the opposition between time and eternity. What is at stake more precisely is the delineation of a relation, transition or passage between time and eternity, or life and death. A time or passage in which life and death, time and eternity become indistinguishable as the passage of the one into the other; arguably, only such a concept of time could make sense if the function of rhythm is to end time while still have a relationship to the actual historical time in which music is performed. In order for Messiaen's notion of a static time to be more than a representation and psychological image of time, the sense of the eternal needs to be conceptualized as such a transition, as an instantiation and a 'material' transformation of time. That Messiaen attested to such an ontological import to his rhythmic work can be seen in the claims that music can create a breakthrough towards the beyond and be a preparation for living in the duration of resurrection, involving a transformation of memory of the past into a memory of the future.

5.2.2 The Time that Remains: St. Paul and the *Ho Nyn Kairos*

To develop a concept of time that can accommodate this I will now turn to Agamben's reading of St Paul in his book *The Time That Remains* (Agamben, 2005). I turn to Agamben here because his reading of St Paul makes possible a connection both to Messiaen's theological thinking and to an understanding of how chronological time carries the potential for its own transformation where rhythm can be seen as a device or machine for that purpose. And as we will see, by this route Deleuze's philosophy of time will also remerge.

The words used by St Paul to designate the time of resurrection is *ho nyn kairos*, meaning 'the time of the now' according to Agamben (2005, p. 61). This Agamben writes must be distinguished from two other kinds of time, namely *chronos* and *eschaton*. If *chronos* is the

time of everyday life, the 'fallen' time, *eschaton* concerns eternity after the end of history, with the apocalyptic *eschatology* seeing and describing the end already fulfilled. Messianic time is the transition, the passageway between time and the eternal. It is not the end of time but the time of the end. Agamben writes, referring to St Paul's first letter to the Corinthians, that

it is not the instant in which time ends, but the time that contracts itself and begins to end (*ho kairos synestalmenos estin*; 1 Cor. 7:29), or if you prefer, the time that remains between time and its end. (Agamben, 2005, p. 62)

This is a time that does not come after something happened, but belongs to the event as a time that leads out of time. In this reading, resurrection is not only the event of Easter Sunday and the redemption of man after the end of time, but also something belonging to time itself. If every now is both the death and birth of time, where a present is lost to the past while a new present is being born, then resurrection is that which ties them together. In this sense it is memory, but not as the memory of a represented past. As we will see below, it is a transformation of memory (as Messiaen also says). This brings the notion of resurrection into the heart of chronological time. To see the philosophical relevance Agamben brings this logic of salvation over from the theological to the epistemological register.

The problem, epistemologically speaking, concerns the difference between represented time and time in itself or, put differently, between consciousness *of* time and consciousness *as* time. To show this, Agamben takes recourse to the work of linguists Gustave Guillaume and his concept of *operational time*.²⁹ The basic idea Agamben extracts is this: consciousness of time requires time to be constructed. 'Every mental operation, however quick, has to be achieved in a certain time, which, while short, is no less real. Guillaume defines "operational time" as the time the mind takes to realize a time-image' (Agamben, 2005, p. 66). The time of realization, this operational time lies behind consciousness of time. This logic repeats the theological image of the fall. Representation as consciousness-of is shot through with an operational time hidden from view. Each opening of the eyes and of forming an idea, each conscious perception and thought re-enacts a 'fall.' Consequently, consciousness is outside itself, never coinciding with operational time yet inextricably intertwined with it.

Pressing within chronological time, working and transforming it from within; it is the time we need to make time end: *the time that is left us*. Whereas our representation of chronological time, as the time *in which* we are, separates us from ourselves

29 Without being able to develop this here, we can also note that Deleuze and Guattari write that 'The refrain fabricates time. The refrain is the "implied tense" discussed by the linguist Gustave Guillaume' (Deleuze & Guattari, 2007, p. 349).

and transforms us into impotent spectators of ourselves – spectators who look at time that flies without any time left, continually missing themselves – messianic time, an operational time in which we take hold of and achieve our representations of time, is the time *that* we ourselves are, and for this very reason, is the only real time, the only time we have. (Agamben, 2005, p. 68)

Operational time is the time that we are, which is for this very reason ungraspable: consciousness-of is always too late because the *of* is an operation which takes time. We carry this operation as our virtual potentiality. The now of messianic time concerns this potentiality. To think and experience it will be to live the time of the now, the *ho nyn kairos*.

Returning from this short epistemological reading of messianic time as operational time we can turn to what this messianic time consists in, how St Paul explains it according to Agamben.

Agamben shows how St Paul lays out this redemptive project by means of two interrelated notions (notions that will be relevant also to Messiaen's rhythms): *typos* and *recapitulation*. *Typos* signifies a relation between two events in chronological time where the one prefigures the other. As such it establishes a non-chronological relation within *chronos*. For Paul – and this is a well-established reading of the Christian Bible as a whole – the fundamental *typos* concern Christ as the Messiah. Adam, through whom sin entered the world, is the *typos* prefiguring Christ as the new Adam. Agamben writes that in Romans 5:14 Adam 'is defined as "*typos tou mellontos*", "the figure of the future", meaning the figure of the Messiah through whom grace will abound for men.' (Agamben, 2005, p. 72)

In this sense the past already contains what will come. Between events in chronological time there are typological relations, and in the time of the resurrection this is fulfilled. The risen Christ is the second Adam, the redemption of the first Adam. Agamben writes that the significance of this typological relation between a past event and the present is the transformation of time implied. It is not simply a past present and a present present. In the messianic *ho nyn kairos*, time contracts and establishes a relation between past and present that transforms both such that 'the past is dislocated into the present and the present is extended into the past' (Agamben, 2005, p. 74).

This dislocation and extension of past and present into each other is captured in the other notion of messianic time, which is *recapitulation*. To explain this Agamben refers to Paul's letter to the Ephesians 1:10 where the project of messianic redemption is laid out. Paul writes 'as for the economy of the *pleroma* of times, all things are recapitulated in him, things in heaven and things on earth' (Agamben, 2005, p. 75). Not only is a past dislocated into the present

and the present extended into a past, but all past is recapitulated. This is a recapitulation of all time in an abbreviated form, as a summary *chronos*.

The recapitulation of the past produces a *pleroma*, a saturation and fulfillment of *kairoi* (messianic *kairoi* are therefore literally full of *chronos*, but in an abbreviated, summary *chronos*), that anticipates eschatological *pleroma* when God 'will be all in all.' Messianic *pleroma* is therefore an abridgment and anticipation of eschatological fulfillment. (Agamben, 2005, p. 76)

Messianic time is a remnant of time situated 'between' chronological time and the eschatological end, functioning as a threshold or passage which saves or redeems the past by recapitulating it in abbreviated form. As a contraction of its essence, resurrection saves and restored the past as living time in a memory transformed into perceptual presence. Agamben compares this to the 'panoramic vision that the dying supposedly have of their lives, when the whole of their existence passes before their eyes in a flash – a vertiginous abbreviation' (Agamben, 2005, p. 77). In the panoramic event, life as a whole is gathered, contracted and restored as virtual co-existence, present through a spiritual remembrance. Here a threshold between life and death is crossed and made indistinguishable, transforming the past into virtual presence and memory into perception.

As said, the messianic does not concern the end after time, but the end *of* time, as a remainder or remnant of time before eschatological fulfilment. It is a kind of anticipation of eschaton as a remnant of time where life becomes death and death life, and where 'the events of the past acquire their true meanings and thus may be saved' (Agamben, 2005, p. 77).

According to Agamben, the two fundamental notions that define the innermost relation between the messianic now and chronological time – *typos* and recapitulation – show how *chronos* and *kairos* are interlaced. *Kairos* is not outside *chronos*, but operates it from within, each instant carrying this potential. To take hold of *kairos* is not to go outside *chronos*, but to seize *chronos* and find the pearl of *kairos* therein. We have seen above what that means: to find the non-chronological relation between past and present in a transformed memory.

In effect, an outside is operated into the very fabric of time itself. Operational time, Agamben's epistemological correspondence to messianic time, is the creation of a time-image, the time of making. As such it is a microcosmic correspondence to the creative operation of God upon Adam. It is the potentiality of time operating as actualization, actualizing as chronological time. But in and through the Messiah, this potentiality is retrieved and recapitulated: 'as for the economy of the *pleroma* of times, all things are recapitulated in him, things in heaven and things on earth' (Agamben, 2005, p. 75). According to Agamben, this text and the meaning

it contains have been repeated over and over again and it constitutes a fundamental passage informing occidental thought.

This short verse is laden with meaning to the point that one could say that several fundamental texts in Western culture – such as the doctrine of apocatastasis in Origen and Leibnitz; repetition or retrieval [*Gjentagelse*] in Kierkegaard; the eternal return in Nietzsche; and repetition [*Wiederholung*] in Heidegger – are the consequences of an explosion of the meaning harbored within. (Agamben, 2005, p. 75; glosses in original)

If this is true, will *Difference and Repetition* also have taken part in this history? In fact, the logic at work in the interweaving of *chronos* and *kairos* and their redemptive recapitulation is reminiscent of Deleuze's nested temporal syntheses where the pure past conditions the passing of the present. The actualization of the virtual produces a living present whose measured relations will be chronological time. But the 'moment' of passing differentiates the present from itself. In its very constitution, the passing present must always already be past and present at the 'same' time. This refers us to the actualization of the virtual, the pure past, as the ground of time's foundation – a ground coming from the sky. The name for this in Deleuze is *Aion*, and even if *kairos* and *Aion* are two different conceptions of time – the 'right moment' and the 'aeon,' presided over by two different gods – they both occupy the *event*. The one is, if you will, the door into the second, the time of *Aion*, where past and future become 'present'.

Moreover, Agamben's epistemological reading by means of Guillaume's concept of *operational time* places this problem of temporality in a way similar to Deleuze in his critique of representation and the dogmatic image of thought. In both cases the difference between time *in-itself* as ontological synthesis and *for-us* as cognitive synthesis is at stake. Deleuze discusses this in his account of the way the active syntheses of representation build upon passive sub-representational syntheses, arguing that the first passive synthesis of time has a dual nature of in- and for-itself:

The constitution of repetition already implies three instances: the in-itself which causes it to disappear as it appears, leaving it unthinkable; the for-itself of the passive synthesis; and, grounded upon the latter, the reflected representation of a 'for-us' in the active syntheses. (Deleuze, 1994, p. 71)

Agamben only gestures to this problem as the difference between the time that we *are* and the time in which we live without discussing the differential nature of time in itself. But the concepts function similarly: the representation of time in active syntheses build upon an operational time of passive synthesis that we are, and in which past and future are only dimensions of the

present. If the first designates the experience and measure of time chronological succession, the second is the living time of the present. Finally, Deleuze also notes the in-itself of this passive synthesis, the unthinkable of time as passage. As was presented in Chapter 2, this unthinkable passing of time refers us to the passive synthesis of Memory, to the actualization of the virtual causing the present to pass. The in-itself of this virtual time is the co-existence of the pure past, and as a dimension of time Deleuze calls it also Aion. Insofar as this second passive synthesis lies at the heart of the first synthesis of the present, the 'door' to it is naturally the living now. Following this reading, to grasp the intensities of the first passive synthesis is precisely the *kairos* of time in which representation can be overcome and time experienced as living forces.

5.2.3 Art as Soteriological Machine

This epistemological dimension brings us back to the function of art as a device to circumvent representation and actualize the sub-representative present as experience. In other words, the work of art as experimentation and 'experience' in a transcendental empiricism. Messiaen claims a transformation of temporality to be the potential function of the musician's rhythmical work. But also Agamben suggests that art can be understood as a device for the creation of messianic time. The potentiality of *kairos* within *chronos* can be put to play through repetition. Typological figures can be used as a subversive element in chronology, such as a drama, a poem, a story or, of course, music. For Agamben, the way rhyme works in poetry can be understood to produce a contraction of time that structurally mimics messianic time. The poem

is a soteriological device which, through the sophisticated *mechane* of the announcement and retrieval of rhyming end words (which correspond to typological relations between past and present), transform chronological time into messianic time. (Agamben, 2005, p. 82)

Agamben exemplifies this with regard to a sestina and its use of rhyme words that are repeated according to rules of displacement. The idea here is that the repetition of rhyme-words functions as typological relations, repeating and announcing its repetition across the lines as the poem unfolds, and that this creates a conversion of chronological time into messianic time.

The sequence of thirty-nine lines (36+3) could ideally unfurl itself according to a sequence that was perfectly homologous with linear chronological time; however, the thirty-nine lines are scanned and animated through the play of alternating and rhyming end words, in such a way that each of them uses and recalls the one in the preceding stanzas (or it recalls itself as another). At the same time, it announces its own repetition to come in the lines that follow. Through this complicated to-and-fro

directed both forward and backward, the chronological sequence of linear homogeneous time is completely transformed into rhythmic constellations themselves in movement. It is not that there is another time, coming from who-knows-where, that would substitute for chronological time; to the contrary, what we have is the same time that organizes itself through its own somewhat hidden internal pulsation, in order to make place for the time of the poem. (Agamben, 2005, p. 82)

In the rhyme scheme, the past is repeated in the present to create a gradual tension and contraction across the chronological unfolding, culminating in the last stanza where all the rhyming end-words are repeated, producing a contracted recapitulation in which the musicality of rhyme and the semantic meaning are superimposed. This, Agamben writes, creates an intensification of the relation between the chronological diachrony and the contracting synchrony of rhyme. With this example Agamben relates poetry to a transformative potential, assigning to it a metamorphosing, soteriological operation on temporal experience. The notion of resurrection and the relation between salvation and memory is here brought to bear on temporal experience in and through art. The way Agamben sees the poem as a device producing messianic time by instantiating typological relation, is a framework for how we might understand the compositional techniques of Olivier Messiaen. This conjoins the Pauline conception of the messianic time to Messiaen's claim that the musician who permutes and retrogrades time prepares us for the state of resurrected life.

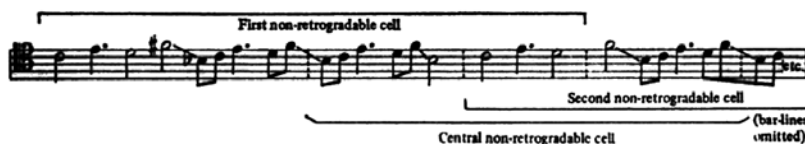
It is obvious that the musical dimension of the poem's play with rhyme-words can be related to music. But the typological relation between past and present effectuated by rhyme words can be seen functioning also in the structure of non-retrogradable rhythms. Non-retrogradation is a play with the unidirectional flow of time as it is constituted in consciousness in the relation between perception and memory. It attempts to effectuate a contraction of time such that there occurs 'a certain unity of movement (where beginning and end are confused because identical)' (Messiaen, 1956, p. 63). This constant retrograde recapitulation gives a symbolical image of time, as an ending of time. In Ian Darbyshire's words, it

removes the idea of any inherent directionality, so that a distinction between moving towards the past or the future becomes impossible to sustain. ... thus viewed as a complete unit the non-retrogradable rhythm is an image of the effective simultaneity of the whole of time. (Darbyshire, 1998, p. 39)

Because a non-retrogradable rhythm may consist of smaller non-retrogradable rhythms, we can see an intricate play with *chronos* where the chronological explication of a rhythm implicates the typological relation on several levels.

Although *Quartet for the end of time* is dedicated to the angel of the apocalypse who in the tenth chapter of *Revelation* announces that ‘there should be time no longer’, we find in the work this rhythmic technique of contracting or expanding time in a number of variations. So, for example in the sixth movement ‘Danse de la fureur, pour les sept trompettes’ (Dance of fury, for the seven trumpets) the music begins with a non-retrogradable rhythm which includes within it a non-retrogradable cell.

The stern and furious time that we hear in this sixth movement is contrasted with the timelessness of slow rhythms that overlay each other and evade clear sense of articulated beginnings and ends in many other movements. The first movement, ‘Liturgie de cristal’ (Cristal liturgy) is built by overlay of heterogeneous durations in the different instruments while the cello repeats the same non-retrogradable rhythm throughout. Robert Sherlaw Johnson shows how Messiaen folds three non-retrogradable rhythms into each other, blurring the distinction between beginning, middle and end (Example 4).



Example 4: Extract from cello part in ‘Liturgie de cristal’. From Johnson 1975, p. 62.

The music of the *Quartet for the end of time* can be seen in light of the above as a musical attempt to create messianic time, the ‘time that contracts itself and begins to end (*ho kairos synestalmenos estin*; 1 Cor. 7:29), or if you prefer, the time that remains between time and its end’ (Agamben, 2005, p. 62). The idea encountered in Paul of chronological time contracting and beginning to end in the *ho nyn kairos* can thus be related to the non-retrogradable rhythms. These are structured rhythms which folds in on itself, contracts and mould temporal experience such that the experience of time is drawn towards a non-chronological stasis, an outside of time at the very heart of it. In a way similar to how Agamben claims the poem can be regarded as a kind of soteriological device, Messiaen claims the rhythmic work of permutation and retrogradation prepares us for the experience of messianic time: ‘In the life of the Resurrection we will live in a duration malleable and transformable. The ability of the musician, who retrogrades and permutes his durations, prepares us, in a small way, for that state’ (Messiaen, 1996, pp. 353–54. Quoted from Taylor, 2010, p. 261).

In this reading, what is at stake in the ending of time is not an opposition between time and eternity but the *ho nyn kairos* operating within *chronos* as a transubstantiation of the one into

the other. In the messianic event we enter the now-time of a second creation, of the second Adam: here chronological time is raised to messianic time. Via Agamben's reading of St. Paul the Christian idea of resurrection is related to the whole of time, as the very essence of time itself rather than (only) and individual soul. This makes it possible to grasp the idea of the time of resurrection not only as a theologically represented idea or a symbol, but as structurally embedded in Messiaen's thinking and musical creation. But it also revealed a structural similarity to Deleuze's philosophy of time in his account of transcendental empiricism.

Olivier Messiaen can thus be said to aspire to messianic time not only as eschatological visions in works such as *Les corps glorieux* (1939) and *Et exspecto resurrectionem mortuorum* (1964), but more fundamentally in his approach to rhythm as a means to end time. Reading his concept of rhythm as an occult device or machine for the ending of time, we can regard his musical thought as participating in what Agamben calls the great 'explosion' stemming from the Pauline event. Messiaen aspires to construct it as event in music by experimenting with rhythms, and in the ending of time, such a music approaches a dazzlement 'so powerful that it can transform our most hidden "me", the deepest, the most intimate, and dissolves us in a most high Truth which we could never hope to attain' (Messiaen, 1986a, p. 63).

5.3 The Sound-Colour of Dazzlement

Above I developed a philosophical concept of Messiaen's ideas of rhythm as a way to experience the time of resurrection. In this section I discuss his claims about sound and colour by means of concepts from Deleuze and Guattari, outlining a similar trajectory of breakthrough to the other side of time in the experience of dazzlement. The basis for this technique of dazzlement is the use of modes and chords that create effects in the pitch-space comparable to those of the rhythmic domain discussed above. These modes are called modes of limited transpositions, but what are they?

5.3.1 Modes of Limited Transpositions and the Construction of Chords

The modes of limited transposition are scales that can only be transposed a limited number of times before they start repeating the same notes. These modes have nothing in common with ancient Greek or ecclesiastical modes, but are for the most part Messiaen's own creation. They divide the twelve tones of the tempered chromatic scale into smaller recurring segments, where each segment ends on the same tone as the following segment begins. They thus contain in themselves tiny transpositions, segments that have the same pattern of intervals, similar

to the way the non-retrogradable rhythms may contain smaller non-retrogradable rhythmic cells. Depending on how many segments the twelve tones of the chromatic scale is divided into, one gets the number of transpositions. Of the seven modes that Messiaen worked with, the first one is the whole-tone scale consisting only of whole-tone steps, which consequently has only one possible transposition. One of the most frequently used is mode 3, which consists of three segments each consisting of a whole-tone step and two half-tone steps.

According to Messiaen these modes create a 'certain effect of tonal ubiquity in the non-transpositions'. The modes create the atmosphere of several tonalities at once without polytonality (Messiaen, 1956, p. 64). Paul Griffiths sums up the circular and static rather than developing harmony that ensues from Messiaen's use of the modes in the following way:

The modes give rise to triads related not by dynamic fifths but by more ambivalent entities: the diminished-seventh chord (mode 2), the augmented triad (mode 3) and the tritone (mode 4 and 6). Correspondingly, the tendency is for music founded on these modes to remain in one ambiguous area, and then perhaps to shift to another, but not to modulate and so develop. (Griffiths, 2008, p. 37)

In *The Technique of My Musical Language* Messiaen says that the modes 'realise in the vertical direction what the non-retrogradable rhythms realise in the horizontal direction' (Messiaen, 1956, p. 62). If rhythm works directly on the sense of time the modes affect the sense of pitch-space. The harmonies and sound-complexes that emerge from the modes are not to be understood in relation to functional harmony, even if theoretically they can be related to functions, such as in the extract by Griffiths above. Rather than elements with a formal development, the modes of limited transposition make the organization of pitches serve music as moving colours. Messiaen makes this clear in this passage from volume VII of his *Traité de rythme, de couleur et d'Ornithologie*:

These modes [of limited transposition] are neither melodies nor harmonies: they are colours. It is the same for the chords: 'chords of transposed inversion on the same bass note', 'first chord of contracting resonance', 'second chord of contracting resonance', 'turning chords' (and the 'turning chords' treated like the 'chords of transposed inversion' in *Sept Haïkai*), and finally 'the chord of total chromaticism'. All these chords are neither truly chords nor sound complexes: they are colours. (Messiaen, 1994, p. 107. Quoted from Cheong, 2013, p. 68)

Conceiving the modes of limited transposition as colours brings the pitch-dimension of music in the service of a kind of inner vision. For Messiaen harmony is about an exploration of timbral possibilities, creating a richness of the overtone spectrum by interference. In his

own words it creates a quality ‘of precious stones, a shimmer, a stained-glass quality’ (Samuel, 1976, p. 74). According to Roberto Fabbi, whether based on the modes or not, practically all of Messiaen’s harmony can be considered ‘as an infinite refraction of natural resonance’ (Fabbi, 1998, p. 62). In this context dissonance and consonance lose their meaning. Chords are, as Fabbi writes, ‘static timbral entities’ (Fabbi, 1998, p. 62), thus creating an intense experience of timbre as light and colour rather than a flow of logical discourse. ‘In a context in which interference becomes the norm, harmony becomes artificial resonance through distortion of acoustic space, synthesized in a vertical, octave-avoiding agglomeration that alters the interval rapports according to complex timbral demands’ (Fabbi, 1998, pp. 63–64).

One example of natural resonance in chord construction is the so called ‘chord of resonance’ which Messiaen presents in *The Technique of My Musical Language*. It is an eight-note chord based on the third mode and includes all of the first fifteen notes of the harmonic series (See Example 5).



Example 5: ‘Chord of resonance’ from Messiaen 1956, p. 50.

The sonorities that this chord creates can then be varied by inversions, creating a rich timbral effect which Messiaen compares to the luminous colours of stained-glass windows (Messiaen, 1956, p. 50).

5.3.2 Natural Resonance, Complementary Colours and Micro-perception

With the reference to the coloured light of the stained-glass windows we are reminded of the theological rainbow that Messiaen writes his music attempts to be. But how can we understand this rainbow and its musical construction from a more philosophical-epistemological point of view, and how does it relate to the central concept of dazzlement? In order to approach these questions, it is instructive to read what Messiaen says about the experiential background for the techniques sketched above. In his *Conférence de Notre Dame* (1986a) Messiaen connects dazzlement to two natural phenomena of perception: complementary colours and natural resonance. For Messiaen these are not peripheral experiences, rather ‘one does not fully understand music if one has not often experienced these two phenomena: Complementary colours; Natural resonance of sounding bodies’ (Messiaen, 1986a, p. 62):

I believe that those are two interconnected phenomena of outstanding importance which are also scientifically verifiable; one sees them and hears them and they're real and natural (Messiaen, 1986b, p. 115)

These are significant claims that we will look into in this section. Natural resonance and complementary colours can be seen and heard as ways to access a subtle dimension of sensing in the process of which a change in perception takes place: from its objectification of a world independent of the perceiving subject to a participation inside the perceived. Messiaen's claim that music can only be truly understood if one pays attention to these phenomena and develop this overseen and overheard element introduces an extended field of experimentation to what counts as musical practice.³⁰ These phenomena are further said to be 'connected to the sensation of the sacred, to ... dazzlement' (Messiaen, 1986a, p. 62). So, what are these phenomena, and how can we understand them as related to dazzlement?

In the *Conférence de Notre Dame* (1986a) Messiaen introduces the two phenomena separately in the following way:

If I hit, very strongly, the low C on a piano: after a few seconds, I will hear, in clear and successive stages, the first tones which are called the 'natural resonance of a sounding body': If I possess a normal ear, I ought to hear another C, higher than the first (the octave), then a G (the fifth). If I have a more acute ear, I will then hear an E (the third); finally, a trained musician's ear will hear Bb and D (seventh and ninth). Personally, I also hear the F# (augmented fourth), rather strong, and an Ab (minor sixth), very weak. Then comes a multitude of higher harmonics, inaudible to the naked ear, but of which we can gain an idea from listening to the complex resonance of a tam-tam or a great cathedral bell. (Messiaen, 1986a, p. 61)

What Messiaen refers to as the natural resonance of the C is also called the partials, or overtone spectrum of the tone C. The partials Messiaen says are audible to him in clear and successive stages are C, C, G, E, Bb, D, F# and Ab. Natural resonance is a well-known phenomenon which means that all tones have a spectrum of overtones. Acoustically speaking, the overtones are a series of partial tones found in any naturally sounding tone, corresponding to the nodes of its vibratory pattern. These overtones, partial tones, or harmonics, as they are also called,

30 Messiaen repeats the importance of these phenomena several places. He speaks about them in his conversations with Claude Samuel, and in a film interview he says: 'I believe in natural resonance, as I believe in all natural phenomena. Natural resonance is in exact agreement with the phenomena of complementary colours. I've made several experiments with complementary colours. I have a red carpet that I often look at. Where this red carpet meets the lighter-coloured parquet next to it, I intermittently see marvellous greens that a painter couldn't mix, natural colours created in the eye. Likewise, sound generates harmonics. When you hear a gong ... Make a long sound on a gong and you'll hear some fantastic things. It's a modernism that no modern composer could surpass.' (Mille, 2002)

have frequencies found by multiplying the frequency of the fundamental (also called the first overtone) by the number the overtone occupies in the series. Thus, if a tone has frequency 128 Hz, the next overtone oscillates 2 times faster at 256 Hz; overtone 3 vibrates 3 times the fundamental, giving 384 Hz, and so on. The overtone series is thus the frequency of the fundamental (x) multiplied by 1, 2, 3, 4, 5 ... In principle, this progression goes on infinitely. Taking a contra C as starting point, the 20 first overtones in the series are shown in Example 6.



Example 6: Overtone series. Numbers above show deviation in cent.

If one was to produce this series as sounding tones from a vibrating string, however, the same series would ensue not by multiplying the original measure, but by dividing it: A string at full length (1) will sound an octave above its half ($1/2$). The subsequent tones of the series are produced from dividing into $1/3$, $1/4$, $1/5$ etc. The first operation measures the frequency of the vibration and is thus based on time, whereas the other is a spatial measurement of the physical substrate of sound-production – in this case the length of a string.

Whereas the series of overtones is constant, the sensation of a tone's timbre has to do with the envelope of the overtone spectrum. When we hear the tone-quality of an instrument made of metal versus one of wood playing the same pitch, the frequency of the fundamental corresponds to the pitch of the tone, but the overtone spectrum reflects the difference in timbre. Even if both have the same overtone series, they will vary as to their prominence. The mathematical computation of the relation between the partials was first done by Joseph Sauveur around 1700, while they were experimentally observed already in the seventeenth century (Dreyer, 1985, p. 70).

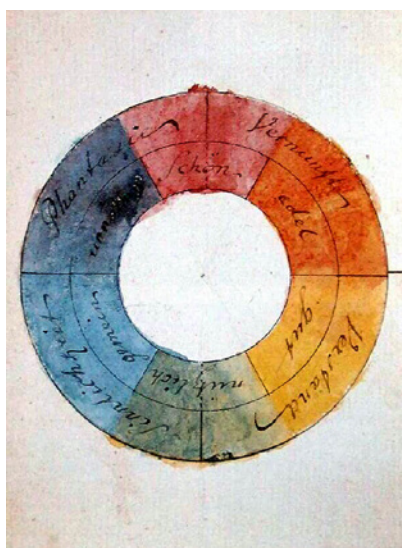
After noting the experience of overtones Messiaen goes on to present the phenomenon of complementary colours.

If I put on a piece of white paper a circle of red paint ... and I look long and intensely at the line of demarcation between the red and the white: after a moment, the red portion at the edge of the white will become more intensely red, and the white will take on a flaming green, which flashes, fades, flashes again, and gives a bright green of incomparable beauty (a bit like emerald, diopside or certain opals). If we do the same with blue, we will have a flaming orange. If we do the same with yellow, we will have a flaming pale violet or mauve. On the other hand, a green will give a red,

an orange will give a pale blue, a violet will give a yellow. This is the phenomenon of 'complementary colour'. (Messiaen, 1986a, pp. 61–62)

This phenomenon, which is also called an after-image, has been known since antiquity (Löbe & Rang, 2018, p. 24). One of the first systematic studies of the phenomena was done by Goethe in his *Farbenlehre* (*Theory of Colours*). In the first section *Physiological Colours*, after having suggested the same kind of experiment as Messiaen notes above, Goethe lists the complementary colours and arranges them in a circle with complementary colours diametrically opposing each other (Example 7):

The colours are here arranged in a general way according to the natural order, and the arrangement will be found to be directly applicable in the present case; for the colours diametrically opposed to each other in this diagram are those which reciprocally evoke each other in the eye. Thus, yellow demands purple; orange, blue; red, green; and *vice versa*. (Goethe, 2003, §50)



Example 7: Goethe, *Colour Circle* (1808–1810). Frankfurt am Main, Freies Deutsches Hochstift, Goethemuseum.

To appreciate the significance of complementary colours and natural resonance and their role in the musical creation of dazzlement, we can turn to Deleuze's ideas about the intensive difference behind qualities in perception. As shown in Chapter 2, Deleuze and Guattari consider Goethe's *Farbenlehre* a book of experimentation which creates a differential concept of colours. This framework can now be extended to the concepts of microperception and intensive forces.

Deleuze explains all perceptions as contractions of microperceptions. From Leibniz, we have the example of hearing the ocean. The flush of a wave gives us an infinite number of foldings, thousands of tiny waves composing together the macroperception. Walking to the beach, we will at some point begin to hear the ocean. Before this recognition, the sounds will have reached us subliminally, and more and more unconscious microperceptions will crowd together to form a critical mass eventually breaking through the differential threshold of consciousness. In the same way, Deleuze explains the experience of sound and colour as emerging from a field of microperceptions:

There are differential relations among these presently infinitely small [perceptions] that are *drawn into clarity*; that is to say, that establish a clear perception (the color green) with certain tiny, dark, evanescent perceptions (the colors yellow and blue). And no doubt yellow and blue can themselves be clear and conscious perceptions, but only if they too are drawn into clarity, each from its own position, by differential relations among other minute perceptions, or differentials of other orders. (Deleuze, 2006, p. 102)

With the phenomena of natural resonance and after-images, we reach a vitality where polarities and intensive movements can be sensed as part of the perceived. For Deleuze, perception originates amidst the world, and the organs through which we sense are themselves part of the element we perceive. The eye is formed by light and the ear from sound, but we do not experience this immanent relationship between an organ and its element. We represent the world in perception because of a differential threshold between microperceptions and the macroperceptions they constitute:

Macroperception is the product of differential relations that are established among micro-perceptions; it is thus an unconscious psychic mechanism that engenders the perceived in consciousness. (Deleuze, 2006, p. 108)

With the experience of overtones and after-images, we come closer to the differential relation between microperceptions. They offer a closeness to a living evanescent matter where the sense organ and its element – colours, sounds – become indistinguishable. In this sense, we approach a liminal field which disrupts the clear-cut distribution of subject and object. Rather than assigning consciousness to a body externally affected by another, at this limit, it is ‘the same body which, being both subject and object, gives and receives the sensation... I experience the sensation only ... by reaching the unity of the sensing and the sensed’ (Deleuze, 2005, p. 25).

It is to this liminal field that Messiaen brings his musical creativity to bear: the overtones, after-image and complementary colours of the eye where sensation may begin to sense itself as immanent to the sensed. A vital element of perception is here revealed on a preliminary level. The organ responds with polarities, movements, pressures and tensions, intensities that expand and contract. As Messiaen notes, looking at a colour, the eye responds with the complementary colour, revealing the differential process at work in the sense organ that was the basis of Goethe's theory. Listening to a tone, a polarity between its pitch centre and the sense of an outward expanding movement of overtones can be felt. Moreover, the same kind of polarities and subtle intensities can be explored with other senses. For example, looking at continuous movement, such as a waterfall, the body responds with a polar upward movement. In effect, these sensations correspond to Daniel Stern's vitality forms or 'virtual contours' that are the 'felt experience of force – in movement – with a temporal contour, and a sense of aliveness, of going somewhere' (Stern, 2010, p. 8). However, they are no longer imperceptibly covered by the qualities in perception but are instead sensed as movements that already turn sensation towards its dynamic nature of intensive force.

All perception envelops an unconscious field of microperceptions, but such subtle sensations as given in after-images and resonances can be seen drawing the perceiver towards the limit where a remnant of this vital matter reverberates. They are ways to 'arrive at the holes, microintervals between matter, colours and sounds engulfing lines of flight, world lines, lines of transparency and intersection' (Deleuze & Guattari, 2007, p. 282). Such potential lines of flight are part of Messiaen's musical thinking and practice, to the extent that he claimed in 1979 that experiencing complimentary colours and natural resonance 'are the basis for everything that I've done' (Messiaen, 1986b, p. 115).

5.3.3 Synaesthesia and Amodal Perception

As is well known, Messiaen often referred to his synaesthetic experience of tones and chords as colours. He considered this experience not a contingent organic disposition but a capacity to access an intrinsic relationship between phenomena. He claimed that natural resonance and complementary colours are in 'exact agreement' (Mille, 2002) and suggested that this aspect of perception and experience occurs subliminally all the time, thus claiming that it is to some extent a universal human experience:

Sight and hearing are linked to each other ... I do believe that most men and women have a sense of this correlation, a sort of sixth sense, it's only less developed, because they don't give themselves an account of it ... they experience it instinctively, it goes on at a subconscious level. (Messiaen, 1986b, pp. 78–79)

This hunch finds support in research and theory on infants and sensory experience. Daniel Stern's research shows that the pre-verbal stages of infants' development take place in an amodal perception of the environment.³¹ For example, empirical research shows that an infant can 'translate' tactile information and operate with it in the visual register without ever having seen the object. This and other experiments indicate an innate capacity for cross-modal continuity. Stern writes that we do not know how such cross-modal translations occur, but suggests that

information is probably not experienced as belonging to any one particular sensory mode. More likely it transcends mode or channel and exist in some unknown supra-modal form. It is not, then, a simple issue of a direct translation across modalities. (Stern, 2000, p. 51)

In other words, these amodal perceptions are not couplings of sound, sight and touch, but concern the more 'global' qualities of experience, such as shape, intensity and time. Only gradually will this intensive domain of perception incarnate into the various modalities, calibrating and informing the distinct senses parallel to the developing sense of self.

Stern suggests that we continue to rely on this intensive dimension of experience throughout life and that artistic and therapeutic language mobilize it. Metaphors derive their strength from amodal information; for example, 'as soon as she spoke it was like the sun came out – I melted' (Stern, 2000, p. 155). This metaphor works simply because it refers two externally completely different registers back to the amodal experience of intensity and time that form the basis for consciousness and social capacities. It is this capacity that 'permit[s] the mother and infant to engage in affect attunement to achieve affective intersubjectivity' (Stern, 2000, p. 156). The amodal, synaesthetic capacity belonging to early stages of life reverberates underneath the self throughout life. As a dimension of potentiality, this will influence each encounter and experience, persisting underneath conscious perception: 'No emerging domain disappears; each remain active and interact dynamically with all the others. ... In this way, all senses of the self, all socioaffective competencies, and all ways-of-being-with-others remain with us throughout the life span' (Stern, 2000, p. xii).

Synaesthesia occurring during normal experience can thus be understood as a remnant from the amodal perception of the infant. Even if this is a different kind of synaesthesia from the infant's continuous field of non-objectifiable sensations, it has this amodal dimension of

31 This has been called the 'neonatal synaesthesia hypothesis' and is critically discussed in the chapter 'Synesthesia in Infants and Very Young Children' in *The Oxford Handbook of Synesthesia*. The authors conclude: 'The recent research findings reviewed in this chapter lend cogent support to the hypothesis that all individuals experience something like synesthesia as infants, with remnants of these cross-modal associations still observable in adulthood, either explicitly in synesthetes or implicitly in all other people' (Maurer, Gibson, & Spector, 2013, s. 58).

intensity as its ground. Furthermore, as Messiaen claims, everyone has this sense, as it works below the threshold of perception as an amodal intensive life.

5.3.4 The Sensation of the Sacred

In *Conférence de Notre Dame*, after Messiaen presents the importance of natural resonance and complementary colours, he goes on to say that ‘these two phenomena are connected to the sensation of the sacred, to the dazzlement which gives birth to Reverence, Adoration, Praise’ (Messiaen, 1986a, p. 62). He thus points to an affective dimension inherent to the intensified experience of sensation.

Following Messiaen’s religious orientation, one would regard nature as God’s creative expression, and the sense of the sacred naturally belongs to this belief. However, the sensation of the sacred is also portrayed as emerging from sensation itself. In effect, Messiaen claims that cultivating complementary colours and natural resonance can transform our relationship to the perceived and instil a sense of the sacred. Intensifying this dimension of perception not only brings about new subtle observations but also intensifies and vitalizes the affective dimension of sensing. The sense of the sacred that Messiaen associates with the experience of complementary colours and natural resonance obviously cannot be a matter of simply noticing overtones and after-images. Instead, his notion invites and inspires a fundamental change in the way one lives in perception. This points to the dual nature of sensation that Deleuze and Guattari term its percept and affect.

As can be readily explored through complementary colours and overtones, within this subtle exchange, the world is no longer simply given but responds to the activity enacted within perception. As if one immediately touched the seen or heard, sensing in and through this element requires a receptive ‘listening’ attention that does not objectify and treat colour and sound as attributes of substance. In the contemplative eye or ear, different attention is installed where intentionality is *quasi*-reversed. Listening to overtones and seeing after-images calls for engaging the phenomenon by letting the sense organs work without intellectual interruption. This requires an inner orientation away from a goal-directed focus and towards an active listening-receptive mode in which sensing is an affective process. This affective dimension can be understood as the site of what Guattari called problematic affect. As discussed in Chapter 3, the problematic affect is the affective counterpart to the intensive site of microperception, both referring to flows that work constitutively below the threshold of consciousness. If the microperceptual dimension refers to the percept as intensive difference, then the affect concerns the becoming of the perceiver, the event of subjectivation. This Guattarian notion of subjectivation was developed partly through reading Daniel Stern’s theory of a field of

amodal vitality affects in infants, situating affect beyond the formed subject and established by Freudian or Lacanian theories of the self (Genosko, 2002, pp. 49–54).

Messiaen's claim that his contemplative immersion in this subtle field of sensing is connected to sensations of sacredness can thus be understood in relation to Guattari's distinction between a sensible affect as belonging to the sensibly given and the problematic affect in which flows of intensities and affects announce themselves and establish sub-representational affective continuities.

If the significance of natural resonance and complementary colours can be attributed to a life-element residing within sensation, then in raising sensing to this level, there is a sense in which this process becomes a 'religious' experience in the etymological sense of *re-ligare*: to reconnect. The life of the sensing organ meets the living impression and gives rise to an experience of living nature in what is otherwise an objectifying perception. In this context, religious feelings of devotion and adoration could be understood as belonging to the sensing consciousness, voluptuous and contemplative, as Messiaen says.

The perspectives above support the idea that music can produce intensities beyond the covered intensities of sensible perception, sensations whose percepts and affects traverse the listening subject as its own becoming by opening it to what Deleuze and Guattari call the BwO or the plane of immanence. These perspectives can be read into Messiaen's occupation with sensation and his claims about the affects it can create.

5.3.5 The Laboratory of Dazzlement

In his work on vitality forms and vitality affects, Daniel Stern writes that art not only relies on this amodal intensive dimension of experience, but that it can be seen as a way to raise it into experience. This echoes Agamben's claim above that art can circumvent chronological time in the intensive moment of *kairos*. But, of course Deleuze and Guattari are equally occupied with art's potential to create encounters with intensities, and in his book on the painter Francis Bacon Deleuze speaks of the possibility to create a multisensible figure in a specific sensory domain, such as a scream or a smell in a painting or luminosity or weight in music, and so on. The basis for creating such a multisensible figure is precisely the amodal intensive sensation of life, a vitality that each and every domain of perception takes part in and that, if experienced *as such*, opens sensation to rhythms of the living world:

But this operation is possible only if the sensation of a particular domain ... is in direct contact with a vital power that exceeds every domain and traverses them all.

This power is rhythm, which is more profound than vision, hearing, etc. Rhythm appears as music when it invests the auditory level, and as painting when it invests the visual level. This is a 'logic of the senses,' as Cezanne said, which is neither rational nor cerebral. What is ultimate is thus the relation between sensation and rhythm, which places in each sensation the levels and domains through which it passes. This rhythm runs through a painting just as it runs through a piece of music. It is diastole–systole: the world that seizes me by closing in around me, the self that opens to the world and opens the world itself. (Deleuze, 2005, pp. 30–31)

We can find this logic of the senses also in Messiaen's music. Both the sound-colour and the rhythmic dimension of Messiaen's music can be encompassed by Deleuze's concept of rhythm as a vital power. Both dimensions can be understood to approach an excess vitality, captured and expressed in the rhythmic techniques of non-retrogradation as well as within the minute vibrations of natural resonating sound-complexes. Intensifying the richness of overtones by the use of natural resonance, Messiaen's harmonic language creates a sense of sound *as* light that can be felt also without an inner visionary synaesthesia. The amplification of natural resonance in the sound-complexes brings out the timbral richness and gives rise to the sense of sound as a quasi-static, transparent and shimmering mass. Such chord-complexes of artificially amplified interference can then be treated as colours placed in relation to each other. Messiaen combines different chords in this way, much in the same the way painters use complementary colours. Two different overtone spectrums create interference and their sense of timbral richness animating the sense of listening is comparable to how complementary colours are produced in the eye and stimulate a colour when applied in painting. Such use of complementary colour is found extensively in the paintings of Robert Delaunay whom Messiaen preferred over all others and whose works he said came 'very close to what I see when I hear music' (Samuel, 1976, p. 21). For Delaunay the life of colours was a perpetual synchronous movement that he termed 'rhythmic simultaneity.' By using complementary colours and contrasting their slow and integrating movement with 'dissonant colours,' i.e., colours neither complementary nor analogous and which created faster vibrations, he gave visual expression to his philosophical view of the universe as composed of forces acting as a simultaneous separation and reunion (Benitez, 2002).³²

One example of Messiaen's adaptation of rhythmic simultaneity is a chord taken from the piano piece *Le Merle de roche* (Example 8).

32 See the article 'Simultaneous Contrast and Additive Designs in Olivier Messiaen's Opera, *Saint François d'Assise*' by Benitez for a presentation of Messiaen's use of simultaneous contrast as compositional technique in his opera *Saint François d'Assise* (Benitez, 2002).



Example 8: Chord from *Le Merle de roche*, p. 19. From Fabbi 1998, p. 63

This is an example of ‘chords with added resonance’ which, as Roberto Fabbi writes

is a technique [which] consists in the addition of a second chord above or below a first, where the second chord is foreign to the first and sound in a clearly distinct register. This produces an effect that is similar to an interference between two different spectra of harmonics. (Fabbi, 1998, p. 63)

Examples of how Messiaen uses simultaneous contrast can be found many places in his work, and Vincent P. Benitez writes that this is an important element in the study of his music (Benitez, 2002). It gives a deeper appreciation of how his harmonic language works. It also opens to a deeper understanding of how his music approaches dazzlement. Instead of drawing listening inwards in a psychological experience of tension and forward momentum, Messiaen’s rhythm and sound-colours turn sensation towards itself in what can be understood as an attempt to create a play of life and light in the sound-complex. Rather than folding the chords into an imaginative contraction of form, perception is worked upon by a molecularizing material giving colour to time. We can understand this as a musical process which gives rise to the sensation of a luminous matter through which listening consciousness senses *itself* as light, before and beyond any mental imagery. Drawing the listener towards the intensity of the sensible, dazzlement is made by such operations:

And as music uses thousands, millions of complexes of sounds, as these complexes of sounds are always in movement, coming and going without ceasing, so too the colors which correspond to them give interspersed rainbows, blue, red, violet, orange, green spirals, which move and turn with the same opposition of intensities, the same conflicts of duration, the same contrapuntal twists as the sounds. Furthermore, the sounds strike and knock our inner ear, and these multicolored things move and

irritate our inner eye, and establish contact, rapport (as Rainer Maria Rilke said) with another reality: a rapport so powerful that it can transform our most hidden 'me', the deepest, the most intimate, and dissolve us in a most high Truth which we could never hope to attain. (Messiaen, 1986a, p. 63)

5.3.6 Dazzlement as Passage

The extract quoted from the Notre-Dame lecture at the end of the previous section portrays the central moment of dazzlement as submergence in a reality of forces. We see this in the way Messiaen describes this passage. The sensations strike, knock, move and irritate the inner eye and ear, suggesting a degree of overpowering intensity. The claim to a dissolution of the 'me' indicated that Messiaen is not describing the feeling of an external force, such as tensions and relaxations, but that sensation becomes internal to force, occupying the very core of experience. This comes out in the end of the above quotation where the most intimate 'me' is 'dissolved': 'a rapport so powerful that it can transform our most hidden "me", the deepest, the most intimate, and dissolve us in a most high Truth which we could never hope to attain' (Messiaen, 1986a, p. 63).

A similar transformative experience is hinted at in the score of his famous work *Quartet for the end of time*. Messiaen here portrays a state of 'conscious sleep' in which a passage into another state of consciousness takes place, involving a dramatic fusion with superhuman sounds and colours:

In my dreams I hear and see classified chords and melodies, known colors and forms; subsequently, after that transient phase, I pass into the unreal and undergo a swirling, a gyrating copenetration of superhuman sounds and colors. These swords of fire, streams of blue-orange lava, these sudden stars: behold the tangled skein, behold the rainbows! (Messiaen, 2007, p. ii.)

The known classifiable colours, forms and chords of lucid dreaming forms a transient phase leading to the moment of metamorphosis: a swirling gyrating movement and co-penetration of superhuman sounds and colours, indicating a powerful experience of forces acting not only on consciousness but turning it inside out so to speak.³³ There is here a reminiscence

33 We find a description that resemble this in Deleuze and Guattari: 'One is obliged to follow when one is in search of the 'singularities' of a matter, or rather of a material, and not out to discover a form; when one escapes the force of gravity to enter a field of celerity; when one ceases to contemplate the course of a laminar flow in a determinate direction, to be carried away by a vortical flow; when one engages in a continuous variation of variables, instead of extracting constants from them, etc. And the meaning of Earth completely changes...'. (Deleuze & Guattari, 2007, p. 372)

of the multicoloured things that strike, knock, move and irritate the inner eye and ear and establish contact with another reality described in the lecture from Notre-Dame (Messiaen, 1986a, p. 63).

In the way Messiaen portrays dazzlement in this lecture there is a dramaturgical build up, culminating not only with the description of his own experience, but also with references to Rilke, Thomas Aquinas and the fourteenth-century Dutch mystic Jan van Ruusbroec. Messiaen thus places his musical work in a historical and spiritual lineage, stamping his conceptualization of dazzlement with the ideas and experiences expressed by these authors. In this way they can be read as sources for a deeper understanding of what Messiaen ultimately means with dazzlement. One example is the following quotation Messiaen attributes to Jan van Ruusbroec: 'Contemplation sees something, but what does it see? An excellence above all, which is not one thing, nor another' (Messiaen, 1986a, p. 64). This belongs to a description of the summit of dazzlement, but Messiaen does not elaborate more, and thus these few words are an important but meagre indication of how Messiaen conceives the encounter with the ineffable. So, what is it Messiaen is referring here?

The lines seem to be from of a section in a treatise called *The Twelve Beguines* (*Vanden twaelf beghinen*) which outlines the nature of contemplation.³⁴ In the translation of John Francis, the lines that come close to Messiaen's quote are rendered thus:

Contemplation is a knowing without mode,
For ever abiding above the reason.
That which has no Mode sees, but knows not what is seen,
Since it is above all, and is neither This, nor That. (Ruusbroec, 1913, p. 35)

In the following part of this text Ruusbroec develops the notion of contemplation, assigning several stages of ascent towards mystical communion. Through purification and devotion reason is enlightened by an uncreated light through which the contemplative draws closer to God. At the summit of this enlightenment, the contemplative raises beyond (though, he emphasizes, not outside) reason or distinction, and becomes one with the light.

a state of emptiness, made one with God in bare love and in Divine Light, free and empty of all the observances of love, above actions, and enduring a pure and simple love, which consumes and annihilates in itself the spirit of a man, so that he forgets himself, and knows neither himself nor God, nor any creature, nor aught

34 I would like to thank Dr. Rik Van Nieuwenhove who directed me to this place in Ruusbroec's work.

else but Love alone, which he tastes and feels and possesses in simple emptiness.
(Ruusbroec, 1913, p. 50)

Read in light of Ruusbroec's 'contemplation', Messiaen's notion of dazzlement takes on a markedly mystical connotation. As we have seen, Messiaen's music gives us an intensive sense of time and sound made from heterogeneous rhythmic layers and from adding and augmenting the natural resonance of sounding bodies, which Messiaen also perceived as colours. If we connect the idea that such a musical material is made to dazzle the listener, that dazzlement can be 'made' from it, to his reference to Ruusbroec, Aquinas and Rilke, then this musical dazzlement points to something far beyond any psychological experience. This is music in the service of enlightenment as 'break towards the beyond' (Messiaen, 1986a, p. 57). Messiaen writes that coloured music can give us dazzlement, leading to a faith whose logical continuation is true contemplation:

Touching at once our noblest senses: hearing and vision, it shakes our sensibilities into motion, pushes us to go beyond concepts, to approach that which is higher than reason and intuition, that is, FAITH. Now FAITH, and its logical continuation, true Contemplation, the beatific Vision after death. (Messiaen, 1986a, p. 65)

5.4 Messiaen and Transcendental Empiricism

In my reading of transcendental empiricism in Chapter 2, I showed how, for Deleuze, the creation of thinking in thought takes place as a repetition of the sub-representative syntheses of time, opening thought to the virtual. To create thinking in thought is thus to go from a representational consciousness in which the world appears as objects of perception subjected to judgements to a plane of immanent intensive life. On this plane, there is an immanence of matter, life and thought – all are states of intensive difference. Deleuze depicts the encounter with intensive difference as that which can carry the faculties beyond representation to the plane of immanence.

Messiaen's work on rhythm, sound and colours, both as a meditative practice and as technical constructions, can be understood from this perspective. In one conversation, Messiaen claimed that everything he created was founded on the experience of after-images and natural resonance (Messiaen, 1986b, p. 115), a statement that in itself sounds like an extreme exaggeration. However, his meaning becomes clear when related to the idea of creating music of microperceptual intensity. Chords which amplify resonance and spectral interference

are thus techniques aimed to produce an excess of intensity. This is also noted by van Maas in his study of Messiaen, writing that the music of dazzlement involves a saturation of the senses to the point where the intentional 'gaze' of listening is overwhelmed and representational content is erased (van Maas, 2009, pp. 58–59). As shown in Chapter 2, in *Difference and Repetition*, Deleuze writes that the encounter with intensity is an encounter with a free and untamed state of difference. Based on the above account of sound-colour, we can regard Messiaen's ideas and compositional practice as precisely an endeavour to create a direct 'dazzling' encounter with free intensities, music which creates a field of intensity that overflows forms and thematic materials.

Messiaen's rhythmic techniques have a similar function. He claims these techniques are ways to contract time, and by mirroring past and future in palindromic structures, they transform the sense of the past into a memory of the future. Thus, the musician's work on time prepares us for the state of resurrection as the passage towards the beyond. In Agamben's reading of St. Paul, the idea of a time 'between' history and the eternal, a time of resurrection belonging to the heart of chronological time, is articulated and related to the epistemological problem of a difference between the time that we *are* and our representations of time. Against the background of this reading, Messiaen's idea about time and resurrection concerns the very process of listening, how listening contracts time and intensity and the possibility of experiencing an end of chronological time and an opening towards virtuality where 'time is a space, sound is a colour, space is a complex of superimposed times' (Messiaen, 1986c, p. 10).

Is there not a great opposition between Deleuze and Guattari's philosophy of immanence and Messiaen's belief in a divine beyond and placement of religious faith above reason and intuition? While the sentiment of Messiaen's Christian faith may be far from Deleuze and Guattari's materialist philosophy, the *operation* that Messiaen's religious-musical thinking engages in is arguably closer. Concerning Messiaen, Bogue writes that 'there is much in his thought and practice that is in accord with the remarks about music in *A Thousand Plateaus*' (Bogue, *Deleuze on Music, Painting, and the Arts*, 2003, p. 24). This chapter argues that this claim can be extended beyond the remarks about music to apply as well to the philosophical operation of creating transcendental empiricism. In my reading of Deleuze and Guattari, I follow Christian Kerslakes' remark (quoted in Chapter 2) that immanence cannot be a purely theoretical problem but must be realized, and I consider the project of transcendental empiricism to entail just this. Even if Messiaen has a different religious context, the idea of creating dazzlement is comparable to Deleuze and Guattari's notion of philosophy as experimentation. Stephen Schloesser writes accordingly that Messiaen 'not only held on to religious faith; he pushed belief in divine immanence to its extreme precisely through his representations of transcendence' (Schloesser, 2016, p. 166). His musical representations

serve not only belief in religious events of the past and future, but also '[aim] at immanence – which is to say *presence*' (Schloesser, 2016, p. 166). If the sensible world is believed to be the fabric of an evolving divine universe, where an intensified experience of colour and sound can give way to a feeling for its sacredness, then faith in the beyond arguably involves faith in *this* world. Messiaen's experimental and contemplative approach to music and sound (and colour) has such a material dimension. Faith in this context is not only a question of emotion and interiority but also involves a practice of the body and mind. As such, Messiaen's ideas lend themselves to a form of pantheism in which the opposition to Deleuze and Guattari's immanent thought is weakened.

This approximation is also furthered if one considers Deleuze and Guattari's many allusions and references to hermetic and esoteric ideas and strands of thought. A reading that takes this esoteric strand seriously may open philosophical thinking towards a spirituality that – even if alien to dogmatic and transcendent values and beliefs – could find resources in Messiaen's practice of music.

In Messiaen's idea of dazzlement as a passage towards the beyond, a realization of immanence is depicted where thought is borne as a light internal to time and (sounding) matter. The description of his own experiences, held up against the reference to Ruusbroec, presents the idea of music which leads to an enlightenment that can be understood as a process of 'die and become', as a spiritual resurrection. In the transformation of 'our most hidden "me", the deepest, the most intimate', Messiaen says that one is *dissolved* 'in a most high Truth which we could never hope to attain' (Messiaen, 1986a, p. 63). In this context, the notion of truth cannot signify a representational value. As something into which one is dissolved via the preceding vortex of forces, truth can only mean something in the direction of an intensive Real as a higher life or spiritual enlightenment. The reference to Ruusbroec strengthens this interpretation, especially if we consider what Ruusbroec means by contemplation:

a pure and simple love, which consumes and annihilates in itself the spirit of a man, so that he forgets himself, and knows neither himself nor God, nor any creature, nor aught else but Love alone, which he tastes and feels and possesses in simple emptiness. (Ruusbroec, 1913, p. 50)

It is possible to recognize Deleuze and Guattari's description of the essence of music in this process: 'Music is never tragic, music is joy. But there are times it necessarily gives us a taste for death; not so much happiness as dying happily, being extinguished' (Deleuze & Guattari, 2007, p. 299). As was discussed in the second chapter, this event belongs to the very heart of the third synthesis of time to which there corresponds an experience of death.

The process of transforming the self-identity of the ego into a differential life can be found in Messiaen's dazzlement, as well as in Deleuze's transcendental empiricism. When the ego is fractured and thinking is born in thought, the thinker becomes internal to the intensive life of the BwO: 'for it is not "my" body without organs, instead the "me" (moi) is on it, or what remains of me, unalterable and changing in form, crossing thresholds' (Deleuze & Guattari, 2007, p. 161).

According to the argument made in this chapter, Messiaen's musical ideas and poietics lend themselves to the creation of transcendental empiricism. The material and bodily dimension of this superior empiricism is not that which is sensed by the 'organism' but the intensive matter of the BwO. Messiaen's ideas of dazzlement appear as elements in a program for creating such a BwO, leading perhaps to a full experience of dazzlement as passing over to the plane of immanence.

5.5 Summary

In this chapter, I have discussed the central notions and techniques in Messiaen's thinking concerning music as part of the transformative process which I have argued is implicit in Deleuze's transcendental empiricism. I examined Messiaen's ideas about rhythm, time and resurrection through the lens of Giorgio Agamben's reading of St. Paul, and the idea of resurrection was extended from being the commemoration of a past event and displaced as the time of the now internal to temporal experience. The economy of redemption was related to a transformation of memory, redeeming the past into a living present where time becomes co-existence. This reading was grafted onto Messiaen's ideas of using rhythm to manipulate and convert the experience of time to reach the 'end of time'. A similar trajectory can be found in Deleuze's transcendental empiricism wherein the virtuality of intensive time has the structure of the co-existence of the pure past.

I also related Messiaen's creation of chords and his contemplative exploration of overtones and after-images to Deleuze's concept of microperception. This opened another notion of rhythm running through colour and sound as intensive life. I briefly discussed Messiaen's ideas about synaesthesia in relation to Daniel Stern's work and Félix Guattari's ideas about affect. Messiaen's work on sound-colour was related to the previous section that focused on his work with rhythm, and against this background, Messiaen's notion of dazzlement was presented. Reading together his own descriptions and the idea implicit in the reference to Ruisbroec, the image of consciousness as participating in a divine light-being was extracted.

Messiaen's musical thinking was then related to Deleuze and Guattari's philosophy, suggesting Messiaen's portrayal of dazzlement as comparable with their notion of a BwO on the plane of immanence where a non-organic life is common to matter, sensation and thought. The transformation of time and sensation found operating in Messiaen's ideas and musical thinking has thus been related to Deleuze's and Deleuze and Guattari's philosophy and their claim that music can bring about a direct encounter with intensive forces. By this synthesis of ideas, Messiaen's musical-philosophical thinking and Deleuze's transcendental empiricism have been demonstrated as mutually illuminating.

6 Giacinto Scelsi: The Interior of Sound and Music as Intensity

In this chapter, I develop a philosophical reading of Giacinto Scelsi's ideas about music and its function in order to situate his thought and practice in relation to transcendental empiricism. With Scelsi's claim that music concerns cosmic forces congealed in the tone, along with his reflections on how aesthetics is a matter of intensity and his view that music first and foremost is a 'path' to this intensive and cosmic reality, his vision of music seems to align with the idea of aesthetics as a superior empiricism. However, to understand this philosophically in any detail, it is necessary to reconstruct and develop several ideas that Scelsi only gestures to or mentions in passing. Apart from some early texts on aesthetics in which Scelsi reflects on his poetics and philosophical take on the role and function of art, much of the material on Scelsi comes from interviews and shorter notes. For this reason, it is necessary to develop the ideas expressed by Scelsi to see how his musical poetics align with the ideas underlying this thesis. Therefore, in this chapter, I focus on two main concepts that bring his musical thinking in proximity to the ideas explored so far: the tone-monad and pure perception. These two concepts belong to two sides of the same coin, its ontological and epistemological sides: the intensive being of sound and its apprehension. These two concepts form the foundational basis for Scelsi's thinking and musical practice, and grasping them with their philosophical and methodological background makes it possible to inscribe Scelsi into Deleuze and Guattari's vision of music as a direct encounter with intensive forces.

I begin by introducing his compositional approach through descriptions provided by the composer Tristan Murail and the musicologist Martin Zenck. Then, I provide some historical background to Scelsi's ideas by presenting the theosophical and anthroposophical inspiration he absorbed from the ideas of Dane Rudhyar and Rudolf Steiner. Against this background, I develop the idea of the tone-monad, which can be considered the central 'object' of Scelsi's music. I do so by expanding a reference Scelsi makes to Goethe, explicating Goethe's concept of the tone-monad in relation to his view of a living nature composed of a polarity and intensification of forces and additionally connecting this to an anthroposophical extension of Goethe's ideas. This will clarify the ideas behind Scelsi's conception of sound as part of a cosmic continuum of intensive forces, and I bring this to bear on Deleuze's notion of intensive forces. I then present the basic idea of Scelsi's aesthetics and develop an outline of Rudolf Steiner's understanding of meditation and cognitive yoga in relation to this aesthetics of intensity. This brings out a method which connects the role of musical poetics and the subject (listener, performer, composer) in the apprehension of music as an intensive force.

In using Scelsi's ideas and writing, one is confronted with the question of whether his proclaimed experiences occurred, and if so, the nature of such experiences. As stated in the introduction, these questions will not be pursued here. I simply take Scelsi's words as material for developing the idea of music and intensity present in his thinking. I consider his ideas to have relevance and (enough) consistency for such an undertaking, even if much of what he writes in his autobiography appears to be imaginary (such as his trips to the East). I also consider such impossible experiences as those claimed by Scelsi to be positive provocative elements that can confront thinking with impossible images and ideas that may not correspond to factual reality in a representational manner but rather function as an image of something unrepresentable. Deleuze and Guattari refer in many places to the esoteric experiments and experiences of other authors, and in placing Scelsi's thinking in the context of their philosophy, using his proclaimed transgressive experiences seems apt. I do this while remaining agnostic as to their reality and/or Scelsi's professed capacities.

To my knowledge, no published studies in English have investigated the relationship between Scelsi and Deleuze and Guattari's philosophy. My contribution in the following chapter will be charting out some conjunctions based on the proximity between Goethe's vitalist ideas of nature and Deleuze – mentioned in the introduction to Chapter 4 – as well as a possible encounter between the esoteric reading of Deleuze and Guattari and Scelsi's intense investment in the occult and esoteric strands of thought. Among the many sources Scelsi refers to in this regard, I have chosen to focus on Rudolf Steiner due to his central importance for Scelsi's project. Steiner and Deleuze's worlds of ideas are far from each other in many respects, a few publications have charted some possible converging ideas. For example, Frederick Amrine writes that 'Deleuze's "plane of immanence" must be what Rudolf Steiner termed in his own late work a realm of "living working", as opposed to the realm of "finished work"' (Amrine, 2015, p. 186).

Beyond Scelsi's own writings, I have benefitted from Gregory N. Reish's (unpublished) PhD dissertation, *The Transformation of Giacinto Scelsi's Musical Style and Aesthetic* (2001), as well as his article, 'Una Nota Sola: Giacinto Scelsi and the Genesis of Music on a Single Note' (2006). Both works mention Scelsi's relationship to Steiner and Rudhyar but without philosophically developing Scelsi's ideas about music as intensity or addressing the question of how his ideas could lend themselves to a systematic reconstruction of a corresponding epistemology. The anthology *Music as Dream: Essays on Giacinto Scelsi* (Sciannameo & Pellegrini, 2013) has compiled a number of English-language scholarly articles on Scelsi that discuss his musical thinking in relation to the influence of anthroposophy and theosophy. Another valuable source is *Musik-Konzepte 31* (Riehn (Ed.), 2015), which was devoted to Scelsi and includes several articles on his music and thinking.

6.1 Scelsi's Revolution

In 'Scelsi, De-Composer', Tristan Murail praises Giacinto Scelsi (1905–1988) for initiating a revolutionary turn in musical thinking as a *de-composer* (Murail, 2005). Murail finds that Scelsi pioneered what he and his fellow spectral composers also seek: to de-compose sound rather than use it as a given building block. As Murail characterizes Scelsi's influence:

It is a complete change of viewpoint, a wholesale reversal of the western musical tradition, which for centuries has been based on combination and superposition. We no longer seek to com-pose, juxta-pose, or super-pose, but rather to de-compose, or even, more simply, to pose the sonic material. (Murail, 2005, p. 173)

One of Scelsi's defining features became the microtonal modulation of sound to express what he referred to as the depth dimension of tone. The compositional breakthrough in this regard was the *Quattro pezzi (ciascuno su una nota sola)* composed for a chamber orchestra in 1959. In the piece, each movement explores a single tone. With this work, Scelsi introduced his new aesthetic orientation. Composition becomes de-composition and the posing of sound, exploring, in Murail's words, 'dynamics, densities, registers, internal dynamism and the timbral variations and micro-variations of each instrument: attacks, types of sustain, spectral modifications and alterations of pitch and intensity' (Murail, 2005, p. 176).

In 'Das Irreduktible als Kriterium der Avantgarde' (The irreducible as a criterion of the avant-garde), Martin Zenck analyses Scelsi's fourth-string quartet, which captures this new way of using sound and can stand as a general characteristic of his mature compositional approach. A brief outline of this analysis can serve as an entry point for exploring music and intensity in Scelsi's thinking and practice.

The three fundamental concepts Zenck develops are 'differentiation of tone', 'tone as sound [*Klang*]' and 'moving sound [*Klangbewegung*]' (Zenck, 2015, p. 91). According to Zenck, Scelsi's work is characterized by the transformation of the traditional use of tones as part of a compositional material into a vegetal and continuous transformation of the tone as 'matter'. Rather than thinking according to the whole and parts, giving form by means of themes and developments, phrases and articulations, the piece is created like one 'great breath, without sections, organizing dynamic and articulation, without motivic phrasing and syntax, as was the case for tonal and atonal idiom and to some extent still for the serial punctualism' (Zenck, 2015, p. 91). This transforms the tone into a continuous sound. By varying one and the same tone on several strings on all the instruments, the microtonal fluctuations 'blow up the fixed kernel of the tone. Through various articulations the one tone is given a specific

colour whereby it remains the same while simultaneously non-identical' (Zenck, 2015, p. 92). Thus, the principal difference between kernel and shell, inside and outside, is transformed, and the microtonal fluctuations make 'a' tone into a fuzzy aggregate. Thereby, the difference between tones becomes permeable and open to a continuous stream of energy. From this microtonal instability, the music turns into a continuous growth, moving and filling up its own tonal space; the tone is transformed into a moving sound-matter, to sound as intensive matter, making intensity the central aspect of this music. How did Scelsi come to think about music in this way?

6.1.1 Scelsi's Percept and Concept of New Intensive Music

Gregory N. Reish (2001) has shown how Scelsi's early development can be divided into two periods, before and after a four-year crisis. Scelsi stopped composing after a mental breakdown in 1948. When he resumed composing in 1952, he began the development which would lead to the mature style for which he is known. Before the break, Scelsi's aesthetic was mainly oriented towards exploring and integrating elements from many different contemporary styles and trends, such as Impressionism, Neoclassicism, Machinism and Second-Viennese atonality. Reish argues that, despite some tangential elements prefiguring what would come, there is very little in this first phase to suggest the new orientation that would follow. Up to 1948, Scelsi seemed to be experimenting to find his own voice, leading to an impasse. Then, after his return to composition, he rather quickly developed what came to be his defining mark, namely the concern with sound's intensive properties such as 'timbre, resonance, overtones, dynamic shape, and microtonal fluctuation—in place of a traditional focus on generating melodic, harmonic, or rhythmic interest' (Reish, 2001, p. 115). In a conversation from 1987 published as 'Je ne suis pas un compositeur', Scelsi claimed that he discovered this possibility of entering into the depth of the sound while staying at the clinic. Here he portrays the repetition of a sound as a way to concentrate himself, leading to an expanded perception:

It happened while I was sick and stayed in a clinic. There are always small pianos there, stored away in the clinic. Almost no one touches them. But I played a little on one of these pianos. C,c,c,c,d,d,d... during which another said: 'this one is even madder than we are!' When one plays a tone for a long time, it grows large. It grows so large that one hears many more harmonies, and it becomes larger inside. The sound envelops you. I assure you this is something else. In the sound you discover a whole universe, with overtones you otherwise never hear. The sound fills the space in which one is, it embraces you, you swim in it. (Scelsi, 2013b, pp. 705–707)

However, as Reish has shown, Scelsi's return to composition and his aesthetic orientation were based on two key external influences: the composer and theosophist Dane Rudhyar and the philosopher, esotericist and founder of anthroposophy, Rudolf Steiner. The possibility of new intensive music in which one would seek to enter the interior life of a tone was outlined in the works of both Rudhyar and Steiner, and Reish argues that Scelsi seems to have developed his compositional strategy in response to their ideas (Reish, 2001, p. 113). What were these ideas?

6.1.2 Dane Rudhyar

Dane Rudhyar was born in France in 1895 as Daniel Chennevière, but he moved to USA in 1916 and eventually became a US citizen. He became part of the American musical scene, joining among others the avant-garde circle around Henry Cowell. Alongside his musical activities, Rudhyar's interest in theosophy and astrology made him an important figure in the spiritual life of American west coast culture. Among the central influences on Rudhyar was the music of Scriabin, with whom he shared a deep interest in the theosophy of Helena P. Blavatsky. In his books on music, Rudhyar outlines a future path for contemporary music which would return to the spiritual relation to tone and sound found in ancient Hindu thought (Rudhyar, 1928). In his books Rudhyar expresses a strong criticism of the European musical tradition which he characterizes as having lost a living relation to the tone and sound for the sake of 'empty' intervallic architectures.

Western classical music has given practically all of its attention to the frame work of music, what it calls musical form. It has forgotten to study the laws of Sonal Energy, to intuit music in terms of actual sound-entities, in terms of energy which is life. It has thus evolved mostly splendid abstract frames in which no painting is to be seen. Therefore the Oriental musicians often say that our music is a music of holes. Our notes are edges of intervals, of empty abysses. The melodies jump from edge to edge. It neither flies nor glides. It has hardly any contact with the living earth. It is a music of mummies, of preserved and stuffed animals which look alive enough perhaps, yet are dead, and motionless. *The inner space is empty.* (Rudhyar, 1929, pp. 26–27)

Scelsi was strongly influenced by this view, and in his research, Gregory Reish has shown that Scelsi assimilated these ideas expressed by Rudhyar in 1930 to such a high degree that he would reiterate this passage almost verbatim in a recorded interview from 1953. Scelsi here says:

I will say only that in general, western classical music has devoted practically all of its attention to the musical framework, which it calls the musical form. It has neglected

to study the laws of sonorous energy, to think of music in terms of energy, which is life. Thus it has produced thousands of magnificent frameworks which are often rather empty, for they are only the results of a constructive imagination, which is very different from the creative imagination. The melodies themselves move from sound to sound, but the intervals are empty spaces for the notes lack sonic energy. The inner space is empty. (Scelsi, 2013b, p. 605)

These almost identical passages show how Scelsi must have internalized Rudhyar's work to such an extent that he could present his ideas as his own. Behind this general reorientation from form to sonorous energy lies also a metaphysics.

The sonorous energy, or what Rudhyar calls *sonal energy*, he considered a life-element underlying sound, but connecting it also to all other manifestations. Rudhyar explains sound as an outer expression of a life flowing within the fabric of the universe, conceptualizing music as a great circulation of this force, capable of sweeping the performer and listener up into its circuit. For Rudhyar, music is capable of reinserting us into a field of forces from which matter itself crystallizes and into which it again dissolves. Any tone is regarded as a living being connected to the life of the universe, and Rudhyar summarizes this spiritual 'vitalist' conception via the image of a plant. 'Tones are like plants or trees, sap and leaves, that is, fundamental, sonal energy and overtones. ... This sonal energy ... can be either descending or ascending energy' (Rudhyar, 1928, pp. 39–41).

If a tone is like a living plant, its seed and soil is the vibrating potential of a body and the physical action of the musician. The encounter between action and instrument releases the potential of a material situation into sound. But this material configuration Rudhyar conceives of as crystallized music in the first place. When a body is struck by an action, this 'means really the dematerialization or atomic dissociation of a fragment of the substance of the instrument ... sound is the liberation of energy of an infinitesimal fragment of the substance of the instrument' (Rudhyar, 1928, pp. 42–43).

The vibrating air that follows from this impulse Rudhyar explains as the sensible transmission of the living impulse that emerges from the impact. Consequently, vibrations are not to be understood as a mechanical, non-sounding cause of sound, but as expressing a current of energy passing through the air as its conducting medium: 'air-waves are not sound, only the result of the passage of sonal energy (an etheric flow) through the air' (Rudhyar, 1928, p. 46). This concept of 'energy' is not reducible to the states of a physical system. Rather, Rudhyar thinks sonal energy after the etheric *akasha* of the ancient Hindu cosmology, as the

being of space and time. This is a cosmos conceived of not as composed of inert matter and 'mechanistic' forces, but of a living 'etheric' matter.

When a tone is produced by a musician, his or her imagination realizes itself in the material conditions. As muscular action meets the vibratory potential of the instrument the tone is born, grows and dies in physical space as it resonates, expands and dilutes. This process can be followed acoustically along the harmonic series. Similar to how a plant has its roots invisibly under the earth, Rudhyar conceives of the undertone series as analogical of this function (Rudhyar, 1928, p. 61). He conceives of this as a descending energy, as a power of incarnation, mirroring the opposite, expanding movement of the overtones which leads back to what he calls the *pleroma* of sound, a spiritual continuum that lies behind actual sound. Rudhyar explains this ascending and expanding principle by the increasing number of overtones filling up the ever-recurring octave of the series. After the first octave doubling of the fundamental, for each successive time the fundamental returns an octave above, more partials will emerge and fill in the space in between. This leads to the idea of an infinite continuum, the *pleroma* of sound (Rudhyar, 1928, p. 81).

In addition to the ascending and descending energy of the over- and undertones Rudhyar speaks of a third stream of ascending growth 'which is the result of the combination of two forces, the upward push borne in the root and the upward pull created by the suction of the sun' (Rudhyar, 1928, p. 68). This third stream corresponds to the circle of the fifths and Rudhyar also compares it to the growth of spiral-like structures of organisms, such as the arrangements of leaves around the stem. Rudhyar thinks the classical Western European music ought to have been based on this energy, but because of its overly intellectual focus on form, it mainly created structural relations between tones while suppressing their interior life. Turning to ancient modes of experiencing sound, the musician of the future was to bring about a rebirth of music by the re-emergence in the West of what lived in the Hindu conception and practice. The relation between sound and tone and the cosmic continuum of formative forces was thus outlined by Rudhyar in a way directly bearing on the questions of the future development of music.

6.1.3 Rudolf Steiner and the Intensive Melody

But Rudhyar was not the only figure who made decisive impressions on Scelsi in his search forward. If Rudhyar was a fellow composer, inspired and greatly influenced by Theosophy, bringing ancient thought directly to bear on contemporary music of his, then Rudolf Steiner will have exerted strongest influence on Scelsi as spiritual authority. Editing, commenting and developing the natural scientific writings of Goethe, Steiner went on to produce his own

philosophical works before becoming involved in the Theosophical movement after the turn of the century, eventually creating the anthroposophical movement and society in 1912. Scelsi possessed several copies of his books,³⁵ and refers to him several places in his autobiography and interviews, considering him as belonging to the greatest initiates and spiritual masters of all times (Scelsi, 2013a, p. 246). Steiner's ideas about music and its future development will therefore have had a significant weight for Scelsi. As Gregory Reish says:

Of particular interest is Steiner's lecture of September 29, 1920, the first in which he put forward the idea of music on a single note. The lecture's initial publication, in the 1952 edition of the *Blätter für Anthroposophie*, coincided with Scelsi's return to composition that same year and may have been a catalyst for Scelsi's radical stylistic and aesthetic departure. (Reish, 2006, p. 151)

The 'lecture' to which Reish refers was a public conversation Steiner had with the audience after the lecture of another participant (Paul Baumann) at a conference organized at the *Goetheanum* building and centre for Anthroposophy. Steiner was asked about his views concerning the tonal system and its potential expansion and transformation into new tuning systems. In his reply, Steiner said he wished to bring the question about the expansion of the tonal system [*Tonsystem*] in relation to that of developing musical sensibilities which, he suggested, was approaching a transformation. In this regard he asks the audience whether they can relate to the claim that it is possible to enter the tone and experience presently unheard aspects of it:

One can, I believe, clearly observe that there is the tendency today within people of musical nature [*musikalisch erlebenden*] so to speak to go deeper into the tone. One can stay more on the surface or enter deeper into the tone, right? And now I ask those personalities with whom we have discussed earlier whether they can construe any conception [*Vorstellung*] from what I say: The musical experience and comprehension of today tends more and more towards splitting the single tone, and so to speak to ask the single tone whether or not it is already by itself a melody? (Steiner, 1989, p. 48)

The tendency to enter the tone Steiner perceives in the general development of culture as a result of the evolving human consciousness, and he mentions Claude Debussy as an example of a composer who foreshadows this development. In Debussy's works there comes to expression a new feeling for music according to Steiner:

35 See the Appendix 'Inventory of Scelsi's Books and Periodicals at Via di San Teodoro 8, Rome' in Reish (2001, pp. 314–337).

Either I don't understand Debussy at all, or I can only understand him as having sensed in advance some of this living into the tone. After all it is a quite different kind of musical sensibility in Debussy compared even to Wagner, for example. (Steiner, 1989, p. 76)

This tendency, this changing sensation of tone belongs for Steiner to a beginning metamorphosis of the consciousness of Western civilization. If the ancient Greek culture gave birth to European philosophy and politics, Steiner sees in the ensuing European culture an evolution in the direction of individuated self-consciousness, more and more separating subjectivity from the living forces of the cosmos. European classical music reflects as well as disseminates this development of individuation and subjective interiority. Functional tonality and harmony integrates the various musical elements according to dynamic forms in ways that mirror the process of individuation. Especially significant for Steiner is the transition to triadic tonal harmony and the interval of the third as a musical process which captures and disseminates the sentiment of interiority and subjective inwardness. According to Steiner, a music built on these qualities envelops and develops the forces of the heart. Thus, similar to Rudhyar, Steiner understands European classical music as constituted from the intervallic relations between the tones. But for Steiner these are not at all empty but are spiritually significant qualities. In a way similar to Ernst Kurth, he claims that the essential aspect of this music is the inaudible intensive relations the tones establish between themselves:

I could give a somewhat peculiar definition of music . . . What is the musical element? It is what you do not hear! That which you hear is never musical. If you take the experience which exists in time between two notes of a melody, then you hear nothing, because what you hear is the tones sounding. But this is the real musical element, this is the spiritual element of the matter, whereas the other is the sensory manifestation of it. (Steiner, 2001, p. 49)

Whereas European classical music from the Middle Ages until the twentieth century according to Steiner developed ever more refined forms capable of expressing the shifting landscapes of the soul, Steiner sees this development reaching a certain height and turn at the transition from the nineteenth century to the twentieth. Standing at a crucial threshold in evolution, the question of regaining contact with the spiritual forces of the living world was imposing itself on humanity according to Steiner. Human consciousness would have to face cosmic forces in itself and in its technologically mediated forms, and in this task, art had an important role to play.

Man must develop a consciousness – we live in this age of consciousness – of how that which has become inward can once again find its way to the divine-spiritual.

[...] In *one* realm, for example, this will be accomplished when the inner wealth of feeling experienced in a melody one day will be discovered in the single tone, when the secret of individual tone will be experienced by man. In other words, man will not only experience intervals, but will be able to experience the single tone with the same inner richness and inner variation of experience that he can experience today with melody. (Steiner, 1989, pp. 162–163)

In a conversation following a lecture for Waldorf teachers in 1922 Steiner envisions this development as something which will turn into what he calls ‘the intensive melody’:

I am bound to be of the opinion that music will undergo a kind of advance through what will acquire more and more importance, and which I should like to call ‘the intensive melody’. The intensive melody will consist in this, that we shall accustom ourselves to experience what today is grasped as a single tone, to experience this tone as already a kind of melody. (Steiner, 1987, p. 349)

As Reish mentions, even if Scelsi repeats Rudhyar’s dismissive claims about the empty nature of European music, Scelsi also seems to echo Steiner’s evolutionary perspective when he contrasts the music of different civilizations and assigns a reason for their various configurations. He writes for example in ‘Son et musique’ first published in 1981:

Every civilization, every era including this one, has its own ground to cultivate, and for Europe since the Middle Ages, a mind of stern logic has had to assert and manifest itself in art—in its entirety as well as in its parts. Thus fugues, imitation, the interplay of contrapuntal voices, formed a part of a *modus operandi* that was intended for them, rather like expression in the romantic era, the depiction of psychological human emotions. (Scelsi, 2013b, p. 607)

Scelsi could find a new direction for his compositional practice from the indications and ideas proposed by Rudhyar and Steiner. His new development in music was conceived as resonating with a gradual shift in human consciousness to perceive the intensive, spiritual dimension of tone. The tone itself became the source of inspiration, and music something which expresses this changing consciousness and thereby also helps to bring it about. As an infinite potentiality, Scelsi conceived of the tone as a monad implicating an intensive dimension: ‘Everything is inside, already in this tone the whole cosmos which fills space. All possible sounds are already part of it’ (Scelsi, 2013b, p. 707). Before we look more into how Scelsi conceived the perception of this intensive dimension of the tone, how is it that everything is already ‘inside’ it?

6.2 The Tone-Monad

6.2.1 Goethe and the Tone-Monad

Beyond a general gesturing to ideas of sound as a cosmic force, Scelsi refers us to Goethe as the theoretical basis for this idea of his. In ‘Son et musique’ Scelsi writes:

I would like to remind here of a theory that goes back to Goethe, even if it was primarily about colours, which however also are vibrations. According to him everything exists before it manifests itself, that is: something appears when the ‘Terrain’ corresponds to it. Said differently, a number of vibrations x lets the tone C or the colour green appear. It is not the vibrations that produce this, but they allow for their appearance. This holds for every tone, for every colour, and even for any illness or any event. (Scelsi, 2013b, p. 599)

When Goethe died, the table for his *Tonlehre* (*Theory of Tone*) hung on the wall beside his bed. This unfinished work occupied him for many years. In it he attempted to approach music with regard to the formative forces of Nature in a way similar to what he had done in the field of visibility and living organisms. In *Farbenlehre*, (*Theory of Colours*) this polarity is expressed in the principles of light and darkness and in *Die Metamorphose der Pflanzen* (*The Metamorphosis of Plants*) they express themselves as the forces of contraction and expansion. The different colours and the various plant forms express the interaction between these forces which Goethe saw as a basic polarity of nature.

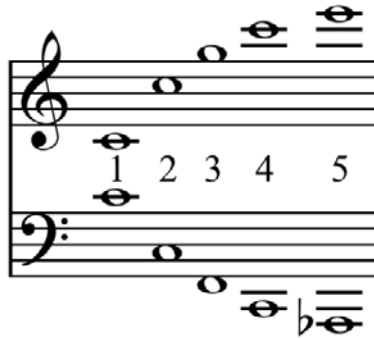
Goethe sought out this polarity also in the tone and in music. In an exchange of letters with Christian Schlosser, a student of Schelling, Goethe expresses his view of the tone as a monad – a concept stemming from Leibnitz’s monadology – in connection with the overtone series and the undertone series:

If the tone-monad expands, then that corresponds to major; if it contracts, then it corresponds to minor. These correspondences I have expressed in a table where the tones are regarded as a falling or rising row; both are thereby united in that one sees the inaudible deepest tone as the inmost centre of the monad, and the inaudible highest as the periphery of the same. (Dreyer, 1985, p. 51)

Goethe’s reference to major and minor mode intersects with the debate between harmonic dualists and harmonic monists. This discussion concerned the origin and nature of the minor mode, and whether it can be considered prefigured in an undertone series similar to how the

major mode can be found within the overtone series. The question thus hinges on whether the undertone series, which is not an acoustical phenomenon, is a purely theoretical construct, or whether it relates in some sense to a reality.

In the overtone series one finds the major triad among the first overtones: With c^1 as the fundamental, the third overtone is a g^2 an octave and fifth above, and the fifth overtone is an e^3 two octaves and a third above the fundamental. Together these compose a major triad. If the intervals composing the overtone series are inverted, the undertone series emerges, and within it also the minor triad: With c^1 the fundamental, we will have an F an octave and fifth below, and an *A-flat*1 two octaves and a minor third below the fundamental, together forming a minor triad (Example 9).



Example 9: The first five tones in the over- and undertone series.

So-called harmonic dualists (to which Goethe belongs, and which has nothing to do with the philosophical terms ‘dualism’ and ‘monism’), claimed that this should be regarded as the origin of minor, and consequently that the undertone series should be considered as reflecting a reality in nature. The harmonic monists disputed this. As the undertone series lacks a given acoustical reality, they claimed that the minor mode did not have a natural basis in the same way major has, and thus was a kind of ‘distorted’ triad, derived from major.

In the present context the important aspect is not the discussion of the major and minor mode as such, but how this reflects Goethe’s understanding of the tone as a monad of expanding and contracting forces. To develop this idea – already encountered in Rudhyar – we must see how the over- and undertone series are understood as expressing a polarity between the forces of contractile resistance and material density, and those of expansive release and acceleration of lightness.

I have already looked into some of the characteristics of the overtone series in the previous chapter. As the name says, it is a series of partial tones over the fundamental or first partial, making the actual sound of a tone a compound of many partial or overtones. Each partial's frequency is found by multiplying the fundamental with the number of the overtone. It is also known that the envelope of the overtones reveals its timbre, thus indicating a relation between overtones and the consistency of its material substrate. If one wants to sense the quality of a material body, one can knock on it or bring it to sound in some way, listening in this way to the density and quality of the material.

But what about the undertone series? Is there a way to understand it not simply as a mere theoretical inversion of the overtone-series, but as reflecting a reality in some sense?

Even if the undertones do not sound naturally and are not a part of the acoustics of a tone, there are ways of bringing tones from this series to sound.³⁶ Heiner Ruland described how the undertones can be discovered by holding one prong of a vibrating tuning fork against the edge of a piece of paper (Ruland, 1992, p. 51). The paper functions as a vibrating membrane, and if each of the vibrations would be taken up by the paper, the same tone as that of the fork resounds. But because at some point the paper may be too sluggish to reverberate with every impulse, it will pick up only impulse 1,3,5,7 and so on. In this case, with only half the frequency of the original, a tone one octave below is heard. With even more sluggishness the paper will only reverberate with 1/3 of the frequency, then 1/4, 1/5. In this way the undertone series can be produced. Undertones are thus understood a phenomenon connected to gradual increase in resistance and inertia and the series indicates possibilities of tones related to that. 'Whereas the whole series of overtones of a main tone sounds along with it as a matter of fact, the undertone series of that tone only indicates the possible places at which one of its undertones might occur' (Ruland, 1992, p. 51).

The overtones are a natural element of the tone which reveals something of the material substrate of sound – thus implying a relation between forces of material density and sound. The undertones must be produced, and their production has to do with material inertia. Ruland's explanation of the conditions for the undertones to emerge relates to Goethe's conception of the tone as expressing and resulting from a field of forces.

The undertone series originates in a higher generating tone and manifest itself through the progressively increasing weight and sluggishness of matter. It leads us

36 The violinist and composer Mari Kimura has developed technique for producing undertones on the violin to such a high degree that they are integrated as musical element in compositions. See www.marikimura.com/ (accessed 26 June 2021).

from lightness into heaviness. Conversely, the overtone series arises through the progressively increasing lightness and quickness of vibrating substance. It leads us out of weight into lightness. (Ruland, 1992, p. 51)

In this Goethean concept of the tone, the overtone series reflects a gradual release from the contractile power and densification of matter. In principle, the overtones take us towards a microtonal plane of increasing speed, much like the *pleroma* of Dane Rudhyar. Higher overtones equal quicker vibrations and more 'light'. In this sense it is understood as the acoustical expression of the expanding *via centrifuga*. The descending undertone-series, on the other hand, reflects a gradual slowing down of movement, and is in this sense related to a contractive power. In this Goethean image of the tone-monad, the central idea is that both the overtones and the undertones represent a polarity of contraction and expansion pulsating in the tone, where overtones represent the expansive release of energy and the undertones the opposite force of contractile resistance. These forces are of a metaphysical nature even if their actualization is the physical sound-wave.

6.2.2 The Etheric Force-Field of the Tone-Monad

The next step in understanding Goethe's tone-monad is to see it as implicating and expressing a *field* of polar forces. If we want to understand the Goethean tone-monad we must not put these two principles over against each other in an external way. Contraction and expansion are interwoven in each other just as all visibility comes about through mixture of light and darkness. A physical sound wave is constituted by this pulsation: the vibrations in the air are alternating rarefaction and compression, expansion and contraction, and, as we shall see, the vibrational pattern released from the sounding body is not only understood as a mechanical push and pull, but at each point on the curve as a dynamic tension between contraction and expansion. Behind or implicated in the physical wave is a living element.

According to an anthroposophically extended Goetheanism, the Goethean polarity of *via centrifuga* and *via centripeta* is differentiated further into four forces, which, following a terminology taken from the esoteric tradition is designated as *ethers* (not to be confused with the pre-Einsteinian luminiferous ether of nineteenth-century theory of light):

The first two, warmth ether and light ether, have the tendency to expand, the impulse to radiate out from a given central point; they act centrifugally; whereas the other two, chemical ether and life ether, have the tendency to draw in toward a centre, the impulse to concentrate all in a given central point; their action is suctional, centripetal. This polarity of the two ether groups—the centrifugal, radiating,

self-expanding will, and the suctional, centripetal will to draw inward, to concentrate — is an ultimate elemental principle lying at the bottom of all natural phenomena. (Wachsmuth, 1932, p. 40)

This field of etheric forces hidden behind the physical expressions of nature is understood as ontogenetically bound up with the densification of matter. In this spiritual understanding of nature, warmth is a primordial etheric substance bound up with heat on a continuum between etheric and physical matter. The other, more evolved, etheric forces are active in the progressively densified material aggregates: ‘light-ether’ works in the gaseous, ‘sound-ether’ in fluid and ‘life-ether’ in solid. Because of this, nature can be approached as a living universe, but also according to the mechanical processes of physical interaction.

[T]he very beings of things, comes with these forces to living expression in the phenomenal world. The ethers ... are, therefore, neither to be understood merely mechanically— as with Lenard and others—nor simply by the negation of all mechanical characteristics, as with Einstein. But, when, as supersensible active principles, they come to living expression in the phenomenal world, they call forth, in this world perceptible to the senses, phenomena of motion, etc., which may, then, only partially and up to a certain point, be considered mechanically. The etheric formative forces, however, are, in themselves, inseparably linked up with spiritual, and therefore qualitative, characteristics—indeed, in the last analysis with that which is individually spiritual. That is, we must ascribe to them, not only such characteristics as velocity, mass, length, volume, etc., which are measurable and calculable, but also characteristics whose laws in the last analysis can just as little be exhausted through numerical estimates as the characteristics of a living man can be exhausted by a table of constants and a sum of mathematical formulae. (Wachsmuth, 1932, pp. 36–37)

Accordingly, these forces are implicated in all actual beings but have also a reality in itself, as an etheric domain that exceeds the actual. They are conceived as living forces at work in actualizing and de-actualizing form, bringing about incarnation and excarnation of forms in nature. Living organisms show this in their transformation and interaction with the surrounding, but all matter emerges from these forces and is penetrated by them. The interpenetration and reciprocal influence of all physical matter with a non-organic etheric life is the reason why nature is prone both to a ‘mechanical’ understanding that sees all process as determined in a system of causes and effects, and to seeing it as a self-organizing, self-expressive being. All beings of the physical world are understood as permeated with living (‘etheric’) and sentient (‘astral’) forces whose origin and being lie outside space and time in an infinite, spiritual

world. When mediated through physical-material forms nature will be seen mechanistically, but if accessed unmediated, as a process of self-differentiation, nature shows itself as a self-expressive self-organization that gives rise to the evolution of the visible universe. This anthroposophically extended Goetheanism goes beyond Goethe, but is based on concepts and ideas already found in his work, such as the polarity of *via centrifuga* and *via centripeta*.

The field of etheric forces constitutes a non-organic life pulsating also in the tone. The physical soundwave composed of compression and rarefaction reciprocally interacts with the two etheric forces of contractile, suctional sound-ether, and the peripherally expansive light-ether. From this dynamic, in which the forces of expansive dilution and contractile suction work upon each other, the tone is expressed. When suction and expansion enter into play in this way, this force-dynamic works upon the listening body. And through this vital dynamic we come into contact with the 'sentience' or 'astrality' of the world:

Taking as a model the expression 'transparent' for the perviousness of a substance to light, we may say that the air, when in a state of acoustic vibration, becomes 'transaudient' for astral impulses, and that the nature of these vibrations determines which particular impulses are let through. ... In [sounds produced by living beings] the vibrations of the sound-producing organs have their origin in the activity of the astral part of the living being, and it is this activity which comes to the recipient's direct experience in the form of aural impressions; in the instance [of lifeless matter being mechanically set in motion], the air, by being brought externally into a state of vibration, exerts a kind of suction on the astral realm which pervades the air, with the result that parts of this realm become physically audible. For we are constantly surrounded by supersensible sounds, and the state of motion of the air determines which of them become perceptible to us in our present state of consciousness. (Lehrs, 2013, pp. 351–352)

6.2.3 Deleuze on Leibnitz's Monad and Intensive Forces

With this reconstruction of Goethe's tone-monad we can relate it to Leibnitz' concept of monad as presented by Deleuze. We have seen how a finite series of physical vibrations implicate a field of forces, an intensive 'etheric' life. The physical wave is the actual part, material foldings implicating the forces of contraction and expansion. This implication of intensive forces in extensive matter is also the first element of Leibnitz monad according to Deleuze:

Extension exists when one element is stretched over the following ones, such that it is a whole and the following elements are its part. Such a connection of whole-parts forms an infinite series that contains neither a final term nor a limit (the limits of our sense being excepted). The event is a vibration with an infinity of harmonics or submultiples, such as an audible wave (Deleuze, 2006, p. 87)

Deleuze here expresses the same idea of the tone as a vibratory activity implicating an intensive life. If we read this together with his presentation of intensity in *Difference and Repetition* a similar idea emerges.

Every intensity is differential [...] is $E - E'$, where E itself refers to an $e - e'$, and e to $\varepsilon - \varepsilon'$ etc.: each intensity is already a coupling (in which each element of the couple refers in turn to couples of elements of another order), thereby revealing the properly qualitative content of quantity. (Deleuze, 1994, p. 222)

Remembering that Deleuze considers intensity as the being of the sensible we can see how the Goethean tone-monad developed above resonates with Deleuzian ontology. In both cases the intensity of a physical wave implicates forces, differences in intensity that go beyond the physical and measurable. All the physical properties of sound waves – contraction, pressure, heat, expansion and decrease in pressure etc. – belong to the cancellation of intensity in the production of the physical tone. The tone is thus an event which implicates intensity and which therefore also renders an experience of intensity ‘covered’ by its material implication.

This takes the concept of intensity outside a reductionist frame in which intensity is merely the quantity of quality. A natural scientific understanding of matter as energy still operates within a system in which intensity is referred to states of affairs, to facts and measurements. But there is also intensity ‘prior’ to extensity and qualities, and this concept of intensity *in itself* comes close the etheric force-field. In both cases we have the notion of an individuating field which is a differential and non-organic life.

When subjected to music one is implicated in this field of intensity, taking part in the play of contractile and expansive forces of the tone, feeling the perceptually given infused by life and movement. In one of his lectures Deleuze speaks about listening and the pleasure it gives us by coming into contact with this intensive field of individuation:

what is pleasure, in the most precise and deepest sense of the word? Pleasure is contraction of a vibration. You will find a beautiful text by Leibniz on music, ‘as being pleasure resulting’ as he says, ‘from an unconscious calculus’, the calculus bearing

on the vibration of the sound wave. In the *Principles of Nature and Grace*: ‘music charms us even though its beauty consists only in relations among numbers, and in the beats or vibrations ... [of which] we are not aware.’ Literally it’s by contracting the number that we achieve the highest pleasure, that is, the pleasure of being oneself. And what are we, we the living, in our organism? I was telling you, in the depth of our organism, and why is it that, even when ill, we have – or we can have if we know how to find it and go all the way to this point of ourselves – this joy of being? What is this joy of being in relation to which all kinds of whining (*pleurnicherries*) are kinds of suffering? This joy of being is nothing other than what we call pleasure, that is, the operation that consists of contracting the elements from which we result. (Deleuze, 1987, p. 11)

The joy and pleasure of music brings one in contact with the joy of being Deleuze says. Joy as affect, as a joy originating in being itself must here mean that one is brought in contact with an intensive life permeating the organism, the life of the BwO, and that the joy belongs to this life itself. Consequently, listening puts us in contact with this joy at the level of being: as the pleasure of contracting a vibratory field implicating the intensive life ‘from which we result’. It is the intensive being of the world itself, and when listening attains this field, it establishes a connection and a potential becoming. This is the pleasure or joy of being. But even beyond this converging notion of an intensive and etheric life, Deleuze presents the tone-monad as a virtuality in a way that can also be grafted on to the Goethean tone-monad.

The origins of the sounds are monads or prehensions that are filled with joy in themselves, with an intense satisfaction, as they fill up with their perceptions and move from one perception to another. And the notes on the scale are eternal objects, pure Virtualities that are actualized on the origins, but also pure Possibilities that are attained in vibrations or flux. (Deleuze, 2006, p. 91)

The resonance with the post-Goethean monad is clearly audible: The tone is an astral sentience – a pure virtuality filled with joy in itself – enveloped in etheric forces implicated in vibratory matter; the flux of an intensive matter. It is true that Deleuze is here using concepts from Alfred North Whitehead that may be incompatible with his own philosophy, such as ‘eternal object’ and ‘possibilities.’ In an essay comparing Deleuze and Whitehead’s notions of reciprocal determination between virtual Idea/eternal object and actual/factual, James Williams notes that these concepts have similar functions in their systems, but that for Deleuze the concept of an eternal object would be too much tied to identity and that the virtual, even if in some sense it subsists in itself independent of the actual, is also changed by actualization: ‘any new

expression or combination of them changes the property, eternal object and Idea, so we never have a set to select from, but a series of varying degrees that we alter' (Williams, 2005, p. 113).

It is not clear on which side the Goethean-anthroposophical conception of the tone-monad would fall, but this metaphysical question is secondary to the epistemological-aesthetic function of this concept in relation to Scelsi's musical thinking. In any of these accounts, listening is a 'connectivity' through which we feel the convergence and divergences with regard to vibratory matter and beyond that virtualities that carry their own joy, their own sentience. But this means that the tone is a gateway: it potentially delivers us to the forces that produce it and beyond that to pure virtualities.

With this image of the tone-monad we have reached a nexus of many of the ideas Scelsi gestures towards. When Scelsi claims that for Goethe 'everything exists before it manifests itself, that is: something appears when the "Terrain" corresponds to it' (Scelsi, 2013b, p. 599), then we can understand this according to the idea of 'transaudience' expressed by Ernst Lehrs above. And when Scelsi speaks of the possibility of entering the interior of a tone, and that the whole cosmos is already contained in it, we can understand this according to the tone as a monad implicating an infinite field of intensive forces and virtualities. In music this dynamic play of force can be felt as the tones propagates through the air and we are inserted into it, feeling the tension between contraction and expansion as the life of vibrations, contracting vibrations from this continuum to which we also belong. And in sensing this continuity with the world we feel the joy and pleasure of the tone. The tone opens up as the inside of matter.

Such ideas present the world of sound as a harbinger of hidden intensities and virtual possibilities. Scelsi's musical project can be seen as carrying this vision into music in an attempt to embody the tone-monad and through that give rise to a new, intensive ear as he claims in 'Je ne suis pas un compositeur':

In the sound you discover a whole universe, with overtones you otherwise never hear. The sound fills the space in which one is, it embraces you, you swim in it. ... When one enters a tone, it surrounds you. One becomes a part of this tone. Little by little one is entwined by this tone, and one needs no more tones. Music today becomes a pleasant spiritual procrastination; connecting one tone to the other and so on. But this is not at all necessary. Everything is inside, already in this tone the whole cosmos which fills space. All possible sounds are already part of it. (Scelsi, 2013b, p. 707)

6.3 Pure Perception, Intensity and Yoga

Having developed the concept of the tone-monad, we can now look at the aesthetics of Scelsi, both with regard to how he conceived the function of art, and with regard to how perception can find access to this intensive dimension.

Already in his early writings Scelsi outlines an aesthetics of intensity. In the undated text 'Unité et égalité des Arts' probably written in the early 1940s (Scelsi, 2023, p. 59), Scelsi discusses the relation between the various arts and perception. In this text he develops a taxonomy of perception based on the premise that reality is a fundamental force or 'vibration' that manifests in degrees and where 'the difference between spirit and matter is not a question of substance, but of intensity or density' (Scelsi, 2013b, p. 567). This reveals Scelsi's fundamental monist conception encountered already with regard to the tone-monad. Matter is a densification of an intensive life. In this image, perception thus stand in a continuum with the world, but functions as filtering process producing what is perceived in consciousness: 'Each form of perception can be seen as instruments of registration, of detector or a filter ... According to their nature these instruments or filters register or reveal elemental forces in one form or another' (Scelsi, 2013b, p. 567).

Depending on the degree of development an individual will experience different aspects of the perceived, both with regard to which modality is predominant (sight for a painter, hearing for a musician etc.) as well as with regard to the degree of intensity and subtleness with which one is able to perceive. In this regard Scelsi speaks of both physical and spiritual sense-organs, including also memory as an organ for the past.

In 'Sens de la musique', written in 1942, Scelsi develops an image of how the human is inserted in the world-continuum on four levels: As a *living* being one participates in the life of the universe, what Scelsi, in a roundabout way after Bergson, terms its Duration or *Élan vital*. As a *sensing* being one is a locus for the merging and reciprocity of spirit and matter. Through the *intellect* the humans extract experiences, organize them, and give them form. Finally, as a *spiritual or psychic* being Scelsi says that one can participate in a cosmic duration and consciousness (Scelsi, 2013b, p. 503). In the above mentioned 'Unité et égalité des Arts' Scelsi also bring these levels of being in relation to forms of listening. To each level, which Scelsi also says should be conceived of as permeating and affecting each other, a type of listening corresponds: physiological, affective, intellectual and psychic/spiritual listening (Scelsi, 2013b, p. 569).³⁷

37 These four categories are also discussed in other texts, with slightly different emphasis, and the ideas Scelsi here expresses are not always transparent (Scelsi, 2013b, pp. 500, 508, 596, 616).

Scelsi also sees these levels reflected in the music: as rhythm, melody, formal construction and harmony respectively. Some of these names have a different meaning from what is normally given to them (Scelsi, 2013b, p. 511). For example, in Scelsi's conception, harmony does not signify harmonic relations such as chords (which rather belong to the formal and intellectual level of music), but the way one relates to the cosmos through the virtualities sound can produce, more akin to a concept of harmony between micro- and macrocosmos.

Rhythm, Affectivity, Intellect and the Psychic-spiritual are thus four fundamental elements 'through which the human takes part in the universe' (Scelsi, 2013b, p. 511). Different musicians will focus on these levels differently, and music will amplify or eclipse the presence of the various levels depending on the composer or musician's degree of perception. In this sense Scelsi considered an artist to partake in the evolutionary development or demise of a culture. In 'Art et connaissance' Scelsi writes that art is a great power within the economy of cosmic forces distributed in a culture, exerting a great influence upon the collective psyche (Scelsi, 2013b, p. 641).

The specific value assigned to a work of art, to artistic creations is grounded in the fact that they are sensible manifestations and material incarnations of a process that depends on immediate and singular cognition of creative cosmic forces. (Scelsi, 2013b, p. 639)

The different arts are manifestations of Nature's cosmic elements passing through the various senses, testifying to the artists talent and emphasis on intellectual construction, affective sensibility, sense of life or spiritual perception. A constant with regard to the development of the various senses is the concept of intensity. In 'Unité et égalité des Arts' Scelsi writes that depending on the degree of intensity, perception can be raised to ever more spiritual levels, or remain attached to the physical material givens, and each form of art actualizes this spiritualization within its specific domain of sensibility (Scelsi, 2013b, p. 571):

Musician	Listening	4 levels of Intensity
Painter	Seeing	4 levels of Intensity
Sculptor	Touching/seeing	4 levels of Intensity
Poet	Identification	4 levels of Intensity

In this way we can understand how Scelsi conceives of art, in general, and music, in particular as a productive revelation of reality depending on the degree of intensive participation. Art is intrinsically coupled with problems of cognition, consciousness and morality, and severed from these it will degenerate into entertainment or procrastination. By focusing on one of the four elements of Rhythm, Affectivity, Intellect and the Psychic-spiritual, listening is configured to raise this element into consciousness as an impulse to the listener. By raising listening to the higher psychic level of intensity, sound can be revealed in its spiritual aspect. Other artists do the same through their respective senses, but behind all the various sense-modalities lie a self-differentiating creative movement which is ultimately grounded in the spirit. For Scelsi creative activity is thus directly linked up to a potential development of sensitivity, perceptual capacities and modes of living and is thus directly connected not only to an expressive endeavour but also to a form of research. In 'Art et connaissance' this is stated explicitly:

For the artist, it is thus about research. In the higher octaves of vibrations and cognitions he must practice his capacity for perception and identification, and work in devotion to these faculties that have conditioned him in the first place in order to fulfil the most wonderful work that is given to a human being on this earth. (Scelsi, 2013b, p. 641)

6.3.1 The Question of Method

If – following Scelsi – the task of the musician is to sense the core of sound, then to become a musician requires more methods than a traditional classical training can offer. For a musician it will not only be a question of handling the instrument and technicalities of music, such as aural recognition of harmony, stylistic understanding and so on. Following Scelsi, the essential becomes learning to *listen differently*, of constructing a new plane of sensation and learn to work with intensive forces:

Only those who penetrate into the core of sound is a musician. For whom that is not possible he will only be a craftsman. A musical craftsman deserves respect. But he is no true musician and also no true artist. (Scelsi, 2013b, p. 685)

For Scelsi, music is thus ultimately a kind of knowledge of the world in the form of a mystical participation in super-sensible forces:

Music is also a path to [the transcendental], a path to knowledge, on the condition that one understands it in a certain way. There are many paths. There is the

Christian mysticism, the Hindu mysticism, the Chinese mysticism. Any form of music is a path to transcendence. There is the gnosis, the Zen. There are many paths to knowledge, among them also art, provided one understands it in this sense and not as a profession or an opportunity to become famous or a way to earn money or whatever. (Scelsi, 2013b, p. 693)

Consequently, music becomes entangled in a whole program of experimentation. Scelsi's ideas about the composer as medium belongs here. Scelsi considered the essential task not to be the element of construction based on intelligence, but the intuitive perception that reveals the interior of sound. As such, the composer's first task is to learn to sense this intensive domain. To acquire that, Scelsi used esoteric techniques such as meditation and yoga and brought this practice over into the musical domain. He would then record his improvisations on the ondiola, an early electronic instrument that allowed Scelsi to modulate the tone freely outside the chromatic scale (Uitti, 1995, p. 12). In addition, he also superimposed new improvisations on recordings of previous ones, thus using recording machines as essential tools in his compositional practice. The task of transcribing his improvisations to written scores for specific instruments would often be left to musicians and assistants, and Scelsi expressed indifference towards the technical limitations and intricacies of musical instruments (Fusi, 2020, pp. 42–43). In this regard, questions about mediating factors impose themselves: to what extent did technology actually intersect with Scelsi's professed spiritual perception of sound as intensive continuum? It seems clear that these technological means were determining factors in his compositional process. How and in what sense would they relate to his psychic state, and how would they influence the artistic results? Such questions merit further investigation, and it is of course thinkable that Scelsi's compositions were less influenced by his meditative state than the possibilities offered by technological means such as the ondiola. However, this question is hard to answer, and in Scelsi's poetics the idea of an immediate perception of the intensive dimension of the tone-monad lies at the heart. It is therefore a necessary component in his musical thinking and must be traced methodologically if we are to have a consistent image of how Scelsi's musical poetics relates to the idea of music as transcendental empiricism.

What then were the means and methods Scelsi envisioned to access the intensive dimension of sound? In 'Conceptual Reflections and Literary Evolution in Giacinto Scelsi's Works' Alessandra Montali writes that the 'capacity to perceive sound's spherical dimension has been regarded as Giacinto Scelsi's secret' (Montali, 2013, p. 69). Referring to Goethe and especially Steiner as Scelsi's points of reference in this regard, Alessandri claims that 'moving on from these theoretical premises, Scelsi elaborated on a revolutionary creative method that was based on the decomposition of sound in the spectral parameters of the harmonic formants' (Montali,

2013, p. 70). If the musicological-aesthetic perspective concerns the technical operation of Scelsi's decomposition of sound, then the philosophical perspective concerns the nature of the theoretical premises of this operation. If we want to understand the nature of this theoretical premise we need to look into the methodological background for Steiner's claims about the perception of the tone as a living force and how Scelsi's ideas cross with these.

Scelsi had an extensive library devoted to these questions, comprising a large number of sources ranging from ancient to contemporary treatments of Yoga, Zen, Theosophy, Anthroposophy, Gnosticism, Sufism and Christian thought (Reish, 2001, pp. 314–337). In his conversations Scelsi would draw on these sources, mixing different spiritual traditions and religious orientations. He thus appears to have composed his own individual practice, freely drawing on different orientations. In 'Son et musique' first published in 1981, for example, he would discuss the attainment of spiritual cognition coming from yoga, including

certain very advanced breathing exercises and knowledge of the effect of sounds on our physical organs and our nerve centers. There are Hindu and Tibetan texts that one would have to read. I would just recommend to you those of Patanjali, which are classics, but I assure you that a few simple daily exercises are more beneficial than a dozen books. (Scelsi, 2013b, p. 603)

But in 'Je ne suis pas un compositeur' Scelsi also refers his experience and practice to exercises given by Rudolf Steiner in the book *How to Attain Knowledge of Higher Worlds*.

I have had this Steinerian initiation. That means for example to identify with the force that grows in a flower, in nature. This is one of the Steinerian meditations: to become one with the force that lets nature grow. I practice this often with my palm tree which stands over there, opposite my house. When one meditates, and enters a state of self-sublation, then it befalls one as with the tone: one expands. Like with the palm; it comes closer and closer, and at a certain point one unites with it. Then one takes this power of the palm, which is very strong, into oneself. By the way this exercise one needs to do with many different things, not only with a palm tree, but also with pictures. (Scelsi, 2013b, pp. 703–705)

Yet another indication about the condition for apprehending the intensive dimension of the tone was given in this way:

To begin, one can hold back the stream, the strain of thoughts. Then when the inner calm/peace is there (which is not yet the void, which is something different) one

can proceed further and further. There are also techniques to get to this. But when one arrives at a certain point there are no longer techniques. (Scelsi, 2013b, p. 705)

But precisely *how* can one hold back the stream of thoughts to produce an inner calm, leading eventually to a voiding of (representational) consciousness? Scelsi never develops a sustained and systematic presentation of the relation between meditative practice and musical problems, and in seeking out a method corresponding to the (de-)compositional problem of sound as intensity we therefore need to construct it based on indications and references to other sources. The reference to the ‘Steinerian initiation’ and the problem of a cessation of thoughts can serve as points of departure, and I will in the following section develop it in the context of Steiner’s new ‘cognitive yoga.’³⁸

6.3.2 Rudolf Steiner’s Cognitive Yoga

To find one’s way to a state of pure perception the production of thoughts needs to cease Scelsi points out. The stream of thoughts must be held back, and an inner calm created. But in this regard the difference Steiner makes between ‘thinking’ and ‘thoughts’ is essential. For Steiner, if thoughts stand in the way it is only because they are crystallizations of pure thinking. Only by first understanding and developing pure thinking will the capacity to hold back the stream of thoughts be acquired in a free way – not by corporeal techniques aimed at terminating the thought-process. On this point Steiner differs from traditional spiritual traditions. In order not to remain dependent on the unconscious role played by physiological processes, the stilling of the mind so central in yogic practice for him depends on an intensified self-initiated thinking concentration. In order to overcome its dependency on thoughts – on mental images, memories, associations, conceptual fixation etc. – thinking must to be realized as *pure activity*. A consciously, continuous initiated thinking activity which revolves around a defined content actively upheld in consciousness treats thinking not only formally, but also vitally, like a muscle that can be strengthened by repeated exercise. This development of thinking concerns not the conceptual content but the power to concentrate and take hold of thinking. In this way, Steiner claims

one acquires the capacity of directing one’s attention no longer to the thoughts present in thinking but solely to the activity of thinking itself. Every kind of thought

38 ‘Cognitive yoga’ is a term used by Yeshayahu Ben-Aharon in his book *Cognitive Yoga – Making Yourself a New Etheric Body and Individuality* (Ben-Aharon, 2016). Steiner presented this method publicly for the first time at the same 1920 Goetheanum conference referred above in connection to the music of the single tone. He then used the concept of a ‘light yoga’ according to the idea of a yoga based on the life inherent in light and other sense-perceptions rather than air. Steiner’s indications have been worked through and explored systematically for the first time by Ben-Aharon. The following sketch of cognitive yoga is based on this work and therefore this term will be used.

content then disappears from consciousness and the soul experiences herself consciously in the activity of thinking. Thinking then becomes transformed into a subtle inner act of will which is completely illuminated by consciousness. (Steiner, 1984, p. 276).

Contracting the normally unconscious will-element of thought into the centre of attention, thinking is said to undergo a transformation: it becomes a self-perceptive self-initiating process. This means that thinking changes nature for Steiner. From a formal process of understanding, without any inherent sense of reality, thinking discovers its own force, its own 'matter'. This self-perception of thinking Steiner describes as a growth-process through which thought discovers its relation to a spiritual Outside, eventually learning to navigate within this element as a being of force in a field of other forces:

You have yourself wholly become the thinker. Then everything rounds off ... In this thinking we live in a being certainly full of force but inwardly mobile, moving backwards and forwards, inwardly active. But the thinking that has become active is like a snail – able to extend feelers or to draw them in again. With this far-reaching organ of touch we can – as we shall see – feel about in the spiritual world; or, if this is spiritually painful, draw back. (Steiner, 2000, p. 42)

With this description of thinking we can turn to how Steiner describes the state of pure perception. Within the new life-element discovered in thinking, Steiner claims cognition can merge with the life of the world. This is Steiner's equivalence to the yogic process Scelsi referred to in which the practitioner must learn to hold back the thoughts and still the mind. From such a situation Steiner claims the activation of a pure perception will be possible:

we attempt to surrender ourselves completely to the world of outer phenomena, so that we allow them to be impressed upon us without thinking about them but still perceiving them. In ordinary waking life, you will agree, we are perceiving but, in the process, continually saturate our percepts with concepts; in scientific thinking we interweave percepts and concepts entirely systematically, building up systems of concepts and so on. By having acquired the capacity for the kind of thinking that gradually emerges from *The Philosophy of Freedom*, one can become capable of such acute inner activity that one can exclude and suppress conceptual thinking from the process of perception, and surrender oneself to bare percepts. (Steiner, 1981, p. 111)

We have here a description of both the condition for meditation, as one in which one is able to 'stop the stream of thoughts' and still the mind, and its role with regard to pure perception.

By the new kind of thinking ‘that gradually emerges from *The Philosophy of Freedom*, one can become capable of such acute inner activity that one can exclude and suppress conceptual thinking from the process of perception, and surrender oneself to bare percepts’ (Steiner, 1981, p. 111). When normal discursive thoughts can be held back, and the mind is stilled and emptied by intensified pure thinking activity, sense-perception can also be lifted into this life-element. On the basis of the subtle will-activity that is becoming conscious as thinking, Steiner presents a new ‘breathing’ between this living thinking and the elements of seeing, hearing, tasting, etc.

In this way the two practices of pure perception and pure thinking complement each other, as two sides of the same coin. Depending on its state and ability to discipline and control itself, thinking can supposedly either hinder or further the meditative immersion in and enlargement of sensation. Following Steiner, to realize its conductive role, one must understand and apply its metamorphosis into ‘will’.

When capable of excluding and suppressing conceptual thinking and associations, Steiner says, one can surrender to pure sense-impressions. This is the state of meditative immersion and ‘breathing’ between pure thought and the life of the sensations. When one learns to ‘breathe’ in the qualities, intensity and forces of the sense-impressions by means of a such a cognitive development, consciousness no longer awakens only by reflection from the physical body and its integration of sense-perceptions, but lives consciously in the being of the sensations themselves.

This leads to Steiner’s renewed concept of a cognitive yoga as process of weaving life and death. But whereas the old form of yoga does this via breathing and affecting consciousness from the physiological foundations, Steiner sets to work from within thinking as the innermost activity of consciousness. This leads to discovering a hidden life-element and death-process in the interplay of thinking and sensations rather than between in- and exhalation:

In the breathing process, we inhale fresh oxygen and exhale unusable carbon. A similar process takes place in all our sense perceptions. Just think, my dear friends, that you see something. Let us take a radical case, suppose you see a flame, you stare at a flame. Then something happens that may be compared with inhalation, only much more subtle. If you then close your eyes — and you can make similar experiments with each of your senses — you have the after-image of the flame which gradually changes — resounds, as Goethe said. Apart from the purely physical aspect, the human life-body is essentially engaged in this process of reception of light

impression and its eventual dying down. Something very significant is contained in this process: it contains the soul element. (Steiner, 1994, p. 109)

According to Steiner, through meditative concentration thinking can contract itself and touch and sense its own hidden life-element, but this life-element can be discovered also within the sensations composing sense-perception. An intensive life is filtered out not only in the constitution of normal thinking consciousness. Because we are continually saturating our percepts with 'dead' concepts, this dead element is interwoven in all perception as well. A universal etheric life is filtered and suppressed in the formation of object-oriented sense-perceptions. But through the transformation of thinking into an intensive force, this universal life can be accessed. The intensive force of thinking can be applied also in the realm of perception, and percepts 'inhaled' without the counterthrust of thoughts and other representational elements. Instead of forming normal perceptions, percepts are saturated with the life-element and are said to begin to flow as part of a new yoga-breathing. Steiner presents this as a thinking which, having become a pure 'will-force', is exhaled while the pure percept is inhaled, in this way weaving together consciousness with an intensive life of the world.

Steiner finds elements of this metamorphosis prefigured in many thinkers and artists, but Goethe and Fichte stand out in particular, representing the spiritualization of sense-perception and thinking respectively.

The development of pure thinking is prefigured in Fichte's intellectual intuition of the 'I', where the 'I' *posits (setzt)* itself as self-creation:

This intuiting of himself that is required of the philosopher, in performing the act whereby the self arises for him, I refer to as *intellectual intuition*. It is the immediate consciousness that I act, and what I enact: it is that whereby I know something because I do it. We cannot prove from concepts that this power of intellectual intuition exists, not evolve from them what it may be. Everyone must discover it immediately in himself, or he will never make its acquaintance. (Fichte, 1982, p. 38)

Fichte called this activity of thought returning to itself as the creation of self-consciousness a *Tathandlung* or 'deed-act' – a word that captures the simultaneous activity of positing (*Handlung*) and the fact or content (*Tatsache*) of cognition, signifying that this activity creates that which is cognized, which is the nature of the self: 'The thought of himself is nothing other than the thought of this act, and the word 'I' nothing other than the designation thereof; that self and self-reverting act are perfectly identical concepts' (Fichte, 1982, p. 37). With this heightened thought-activity Fichte begins his system at a point which he claims is both

theoretical and practical. It is a thought which is an action, and this action is immediately intelligible for itself. Here the moral and the intelligible coincide, and from it, his system follows. Novalis succinctly formulates this philosophical activity in one of his fragments: 'Fichte's demand of simultaneous thinking, acting and observing is the ideal of philosophizing – I begin to realize this ideal – by attempting to carry it out' (Cited in Wood, 2014, p. 270). From this principle – 'I am' as creative thought – Fichte then deduces and develops a dialectical unfolding of its conditions of its possibility. In his philosophical work Steiner picks up this principle and applies it to the act of cognition, most clearly in *Truth and Science* (*Wahrheit und Wissenschaft*, 1892).

The metamorphosis of sense-perception, on the other hand, Steiner saw prefigured in Goethe's study of the polarity and intensification in natural phenomena:

Goethe did not strive for the law of nature, but for the primal phenomenon; this is what is significant with him. If, however, we arrive at this pure phenomenon, this primal phenomenon, we have something in the outer world which makes it possible for us to sense the unfolding of our will in the perception of the outer world, and then we shall lift ourselves to something objective-subjective. (Steiner, 1994, p. 112)

In Goethe's *Farbenlehre* the primal or *Ur*-phenomenon is arrived at by seeing the wholeness of the colour phenomenon, how the colours emerge between light and darkness. This also involved experience complimentary colours – or physiological colours as Goethe calls them. For this one would have to learn to dwell in the after-images that linger on in the eye. With this and similar experience, when made into systematic experimentation, Steiner claims is possible to experience 'something in the outer world which makes it possible for us to sense the unfolding of our will in the perception of the outer world, and then we shall lift ourselves to something objective-subjective' (Steiner, 1994, p. 112). In other words, it is not only the after-images (or, with regard to sound, the natural resonance) *per se* that is the important factor, but the subtle activity that is unfolding as part of the impression, and the potential this sensation is said to have in bringing consciousness in touch with a subtle life. If the unfolding of will is raised to something subjective-objective it is no longer wholly dependent on the individual, but becomes a force which spans and implicated the object of perception as well as the subjective pole of experience. If the Fichte-impulse is said to draw forth a subjective-objective will in and as pure thinking, Goethe's approach develops a subjective-objective activity in sense-perception. From these impulses, Steiner develops his cognitive yoga, a spiritual cognition disjoining pure thought and pure percept. Thus a cognitive breathing is thought to replace the controlled inspiration and expiration of old yoga, giving rise to a systole and diastole of the free soul-elements.

Because this is but an intensification and purification of the natural ability to think and perceive, Steiner thinks such development and metamorphosis belong to a natural evolutionary development of human consciousness, and therefore may to some extent come about as a matter of natural development. The changes in musical sensibilities that concerned the perception of a single tone belongs in this perspective.

If we return to Scelsi it is possible to bring this method to bear on his approach to music without of course claiming that he followed this in any systematic way. On the one hand Scelsi points to the problem of holding back the stream of thoughts. On the other he attached great importance to a sustained experience of natural resonance of overtones. Scelsi writes:

For western man the overtones are generally an acoustical factor; the eastern man on the other side seeks in them a spiritual element which goes beyond the physical. (Scelsi, 2013b, p. 605)

and

For the artist it is about research. In the higher octaves of the vibrations and cognitions he must practice his capacity for perception and identification, and work in devotion with the capacities that have conditioned him... And now, listen, as far as you are capable, to the resonance of the overtones of this deep tone. (Scelsi, 2013b, p. 641)

Scelsi asks us to plunge into the resonance of overtones with a mode of listening that does not simply register the partials but identifies with them and hears in them a 'spiritual element' leading beyond the physical. That this spiritual element is not only an object of hearing but a transformation of listening itself becomes clear in the account Scelsi gives of how he came to experience this intensive dimension of sound.

In 'Je ne suis pas un compositeur', Scelsi describes this event through a story taken from Zen Buddhism (Scelsi, 2013b, pp. 683–715). A monk approaches a master and asks to learn the art of archery. He is told that he must first learn to see the heart of a louse. Asking how this shall come to pass, the monk is advised to tie a string between two sticks, put a louse on the string and lay beneath to watch it go back and forth relentlessly. The monk accepts this task and asks how long he will have to do it. The master replies that he should do it for a long time, until he can see the heart of the louse beating. For many years, the monk lies under the string, observing the louse. Then, one day, the louse starts to grow bigger and bigger – 'When you perceive something for a long time it grows bigger and you see many more details', Scelsi

comments. Then, the monk sees something moving within the louse: finally, its heartbeat.³⁹ ‘Precisely in this way one hears a sound,’ Scelsi says, and then explains how he created such an experience with a tone (Scelsi, 2013b, p. 705):

When one plays a tone for a long time, it grows large. It grows so large that one hears many more harmonies and it becomes larger inside. The sound envelops you. I assure you this is something else. In the sound you discover a whole universe, with overtones you otherwise never hear. The sound fills the space in which one is, it embraces you, you swim in it ... When one enters a tone, it surrounds one. One becomes a part of this tone. Little by little one is entwined by this tone, and one needs no more tones. (Scelsi, 2013b, p. 707)

We can read this story on at least two levels. One is the factual content of how Scelsi came to a spiritual experience through playing a single tone at the piano and how he describes this experience. Second, it is also possible to read the Zen story as conveying a methodological element that can be related to the above discussion of pure perception. As such, it is the feelings and sensations it conveys that are important. As an allegory, the story is about extreme endurance, unceasing repetition and self-transcendence, and it emits a sense of immense concentration which leaves behind all unrest and unease. The louse’s heartbeat becoming visible is no longer simply seeing an object in movement but a metamorphosis of sensing itself. The *feeling* of such a state of unceasing, concentrated, pure perception appears to be an essential teaching of this otherwise absurd story. In Scelsi’s use, the Zen story paints the picture of an expansion of listening which begins with subtleties such as the overtones, then discovers new and imperceptible aspects of the tone-sensation. Read in this way, the story can be taken as a depiction of the idea of pure perception.

Returning to the epistemological discussion above, the states of pure perception and pure thinking can be seen as the cognitive pillars corresponding to Steiner’s idea of intensive music. They are the conditions for entering into the depth of the tone, and Steiner’s reference to the experience of after-images as a place where this life-element can be grasped is arguably comparable to Scelsi’s focus on resonance in listening. If we consider Messiaen’s claim that

³⁹ Scelsi does not give a source for this story. Its origin may be the legend of *Ji Chang Guan Shi* in the *Chinkurin-treatise*. This story differs somewhat from Scelsi’s version. In this legend, Ji Chang Guan Shi approaches the archer Fei Wei and asks how to learn the art of archery. He is told to practise not blinking, regardless of what happens. After practising for two years, he returns to the archer and reports that he now has learnt this lesson. Then, Fei Wei tells him to practise making small things look big. Ji Chang goes home and ties a louse to a hair and hangs it from a window, glaring at it. After one month, it looks a bit bigger. After three years, it has grown as large as a cartwheel. Thus, he becomes able to learn anything he looks at appear as big as a mountain, and he can pierce the centre of the louse with an arrow of mugwort. Thanks to Christian Meaas Svendsen and the Oslo *Rinzai Zen-Senter* for pointing out this possible source.

after-images and natural resonance are corresponding phenomena, this interpretation appears viable. Thus, according to Steiner, within these subtle elements of sensation, a subjective-objective moment is detectable where the 'will' in perception is indistinguishable from a vital element of the perceived matter.

6.4 Scelsi's Intensive Music and Transcendental Empiricism

Both the concept of the tone-monad and that of pure perception as its epistemological equivalence can be related to Scelsi's ideas of music. As a general trait, Scelsi transforms the tone into a flux of sonic matter in continuous modulation. This transformation of the tone into a continuous moving sound matter breaks with any punctual conception of the tone, and opens it to all sorts of microscopic variations and intensive differences. As an expression of the intensive reality of the tone this operation makes music into a moving energetic sonic matter concerned not with intervallic relations but with internal differences within sound. In the words of Tristan Murail that opened this chapter, rather the relations between constituted tones this music is concerned with 'dynamics, densities, registers, internal dynamism and the timbral variations and micro-variations of each instrument: attacks, types of sustain, spectral modifications and alterations of pitch and intensity' (Murail, 2005, p. 176).

As Heinz-Klaus Metzger writes, this directly affects the mode of listening. When a single tone is modulated in intensity, dynamics, density and timbre as well as in its pitch dimension without moving to a distinct other tone, it remains the same while no longer self-identical. This disbands western culture's ingrained convention of determining two different pitches as two distinctly different tones (Metzger, 2015, p. 31). Listening is thus drawn towards the intensive dimension of sound, apprehending microscopic variations rather than relations between tones. This is a general mark of Scelsi's later works Metzger writes, where 'fluctuations in pitch are artificially arranged, so that differences are not to be perceived as intervals, in other words not as proportional relations of distinct data set in relation to each other, but as continuous modification of the state of an entity' (Metzger, 2015, p. 31).

Even if Scelsi's mature works naturally vary, a number of commentators share Metzger characteristic of Scelsi's music as a general trait of his musical thinking. In the beginning of this chapter, I referred to Martin Zenck who described Scelsi's music as a differential transformation of the tone into moving sound. Henk de Velde likewise describes Scelsi's music as an 'unbroken stream which dissolves the concept of tones as discrete, fixed states and dynamically

modulates them into one tone-*area* [Ton-*gebiet*], reinforced by a continuum of micromodulated tone production' (Velde, 2015, p. 113) and which he writes makes musical time into space.

Scelsi's innovation lies in this approach to sound as a continuum of energetic matter in which listening apprehends not external relations but differences internal to sound. This new kind of listening is discussed by de Velde as an implication of the subject in the musical process conceived of as a dyad on a scale of degrees of distance/adequacy [Distanz/Adäquanz] between subject and object (Velde, 2015, p. 106). If on the one end of this scale thought takes place in relation to and between sounds Scelsi even supersedes thinking *with* sound for an immanent thinking *as* sound. As infinitely small transitions within sonic differences, listening thought must engage immanently with intensive differences in the sonic fluctuations. That is, thinking is here at work immanently in and as the percept. At the threshold of infinitely small differences the form-matter relation transforms into an immanence of form and matter, thinking and percept.

With these general traits of Scelsi's musical thinking the two main concepts developed above come into view. We can understand Scelsi's music as incarnating both the idea of the tone-monad in which one tone already harbours an open whole, being the local manifestation of an infinite field of difference, of differences in intensity, and the idea of a pure perception in which perception no longer takes place among external relations but within a continuous modulation of intensive difference.

Behind the unitary and fixed perception of a single tone lies an infinite field of forces acting on each other, and in the ordinary representational perception of a single pitch, this intensive field is cancelled, constituting the stability of the perceived tone. A music which would incarnate and make this idea of the single tone into its object would need to make audible this interior field, an intensive space of differential force.

This experience of a continuous modulation of sound and intensity can also be related to the idea of a pure perception. If Scelsi's music eschews fixed formal elements, blows up the kernel of the tone and makes kernel and shell indistinguishable as a continuous mass, this will have as effect an inhibition of discrete categories of thought, making the conceptual orientation within the sonic flux dependent on an immanent relation. Rather than thinking 'about', it thinks 'in' and 'as' sound. Corresponding to the idea of a pure perception developed above, thinking becomes the energy, intensity or 'will' of the perceptual event, purely immanent to the intensive matter of perception. Thus, both the immanence of thinking within perception and the element of continuity found in the idea of a pure perception as a stream of intensive life – as event – belong to Scelsi's transformation of the tonal material.

As such, the tone-monad and the pure perception appear as fundamental ideas actualized in Scelsi's musical thinking. But this account also opens to the door to see how Scelsi's musical thinking relates to Deleuze's transcendental empiricism. The idea that music can give rise to a direct encounter with intensive forces can be extracted from the above, both with regard to the nature of this musical material and its transformation of listening attitude. As continuous modulation of sound, bringing forth minute variations and molecular movements, listening must sense unrepresentable differences in intensity. Situated at the threshold between the representation of the tone or sonic event and their constitutive differences in intensity, this music continuously folds listening into a sub-representational play of forces in sonic matter. The role of memory as well as conceptual thinking is thus put out of play. The continuous modulation of sound inhibits these faculties and wrests listening sensation out of common sense: a pure perception is sensibility acting on its own, as pure sensation of intensive difference. The play of forces active in Scelsi's moving sound becomes the object of a sensation no longer informed by structural grip of conceptual representation and memory.

On this point, a proximation between Steiner's cognitive yoga and Deleuze's idea of a disjointed exercise of the faculties is also possible. As discussed in Chapter 2, Deleuze presents the encounter with intensive difference as something which can carry the faculty of sensibility to its transcendent exercise, releasing it from common sense. In effect, this is not far from the idea of pure perception as developed in Rudolf Steiner's cognitive yoga. In both accounts, sensibility is presented as acting on its own, without the imposition of memory, conceptual thought or imaginary elements. Pure perception in Steiner's account is a *force*, something which passes between and beyond the subject and object. Steiner's notion of 'will' in perception and thinking signifies that this element of force is neither subjective nor objective but traverses both. This may be why Frederick Amrine equates Deleuze's plane of immanence to Steiner's concept of 'a realm of "living working", as opposed to the realm of "finished work"' (Amrine, 2015, p. 186). The notion of will has anthropocentric connotations, which probably should not be lost, considering the fact that Steiner names his work Anthroposophy (wisdom of the human), but which also should not be tied to the representation of the human and subjective experience or consciousness. The unconscious and potential *spiritual* element of the human 'will' belongs, in his cosmology, to the forces at work in the world at large. Thus, to discover the 'will' in thinking and perception is precisely to return these faculties to the forces of the world beyond the human. Arguably, this is close to Deleuze's idea of a disjointed exercise in which each faculty is brought 'to the extreme point of its dissolution [where] it grasps that in the world which concerns it exclusively and brings it into the world' (Deleuze, 1994, p. 143). Steiner's idea of a complete surrender to bare percepts is said to be possible because of a suppression of the interior activity of the subject, and as such, sensibility can be said to be disjointed from the other faculties. The precondition for such a suppression of mental life

is the development of pure thinking, according to Steiner. As the quotes above show, this is not a formal concept of 'pure' thinking as mathematical or logical content, but of thinking as a vital force or 'will' traversing the distinction between subject and object:

In pure thought a particular point is attainable wherein the complete convergence of the 'real' and the 'subjective' is achieved, and man experiences reality. If we now set to work at this point, if we stimulate our thinking so that it comes forth out of itself from this point—we then grasp the things of the world from within. (Steiner, 1984, pp. 102–103)

The pre- or impersonal element of thinking is signalled in the claim that thinking 'comes forth out of itself'. Thus, summing up Steiner's account, to explicate the element of will in thought is to discover thinking as a vital force, a sensation of life as a self-touching haptic element which comes forth out of itself and where 'pure thought produces its own essential material being' (Steiner, 1984, p. 102). This depiction of thinking as an intensive force through working on the Fichtean *Tathandlung* also has interesting parallels to Deleuze's reference to Fichte in his last text, *Immanence: A Life...*:

Fichte, to the extent that he overcomes the aporias of subject and object in his later philosophical works, presents the transcendental field as a life, which does not depend on a Being and is not subjected to an Act – an absolute immediate consciousness whose very activity does not refer to a being, but is ceaselessly grounded in a life. The transcendental field thus becomes a genuine plane of immanence, reintroducing Spinozism into the most elemental operation of philosophy. (Deleuze, 2007, p. 386)

The Deleuzian conception of sensation as intensive difference on a plane of immanence effectuated by means of a disjointed exercise of sensibility can thus be compared to Scelsi's Steinerian inspiration in which cognitive yoga separates pure thinking and pure perception and finds the potentiality of 'will' as a vital force beyond the distinction between subject and object. Amrine's claim may thus be supported despite the obvious differences between the esotericist and the philosopher.

What may seem to differ in their approach is the importance Deleuze attests to sensibility as origin. Steiner claims that the Fichtean *Tathandlung* is a philosophical process that can create pure thinking as a living force and that this metamorphosis of thinking into a self-propelling 'will' is what makes it possible to discover an intensive life of sensible phenomena (exemplified by Goethe's *Farbenlehre*). In contrast, in *Difference and Repetition*, Deleuze presents the creation of thinking in thought as the summit of a process ignited by an encounter

with intensive difference in the sensible domain. This focus on an encounter with intensity differs from Steiner's epistemological account where thinking is gradually transformed into an intensive force by means of reflection. Although Scelsi's aesthetics relies to a great extent on Steiner's ideas, his account of the discovery of the tone as intensive depth in fact seems to correspond more to the idea of an encounter with intensity in the sensible domain, although these questions and their implications will have to remain open.

6.5 Summary

In this chapter, I have explored Scelsi's idea of music based on a single tone in order to create a philosophical concept of the tone-monad and a corresponding methodology of pure perception. This was done by considering Scelsi's theosophical and anthroposophical inspirations. I then took Scelsi's reference to Goethe as the point of departure to reconstruct the tone-monad. Scelsi's anthroposophical inspiration was here used to extend the Goethean conception of a polarity of forces inherent in any sensible phenomenon, theorized by Goethe as corresponding to the ascending and descending partials of a tone. The anthroposophical extension of this idea considers the physical wave itself to envelop contractile and expansive forces, giving way to its expression in space and time in and as the alternating compression and rarefaction of matter. This idea of an etheric universal life was then extended further with Deleuze's conception of intensity as an infinite series of difference. In this way, Scelsi's musical object was interpreted as corresponding to Deleuze's notion of an intensive field of individuation behind actualization.

I then turned to the question of Scelsi's aesthetic writings, showing how he focused on the notion of intensity and perception. The second part of the chapter discussed the methodological dimension of Scelsi's ideas about how to perceive the intensive 'depth' of sound. I did this via Rudolf Steiner's cognitive yoga in which thinking and perception are said to be metamorphosed by discovering and bringing forth a hidden element of 'will'. This was further compared to Scelsi's own description of how he came to his experience of the tone. I ended by returning to the Deleuzian notion of a disjointed exercise and a plane of immanence. Picking up on Frederick Amrine's suggestion that Deleuze's concept of a plane of immanence can be found also in Rudolf Steiner's ontology, I argued that this shows how Scelsi's musical thinking gives us yet another prism through which to construct a relationship between transcendental empiricism and music and challenge our understanding of what it means to create a direct encounter with intensity.

7 Music and Transcendental Empiricism

In this final chapter, I revisit the previous readings of Schönberg, Messiaen and Scelsi and discuss how their musical thinking, ideas and theories converge and diverge in relation to Deleuze and Guattari's philosophy.

7.1 Schönberg: Expressing the Virtual Idea in a Differential Musical Language

In my reading of Schönberg, I developed a Goethean image of thought that can accommodate many of the central ideas that preoccupied Schönberg and found expression in the dodecaphonic principle. Goethe's conception of the Idea as it comes to expression in his notion of the *Urpflanze*, or the living essence informing the growth of an organism, was shown as a model for Schönberg's conception of a musical Idea. I also presented Schönberg's notion of the tone as a living being and his ideas about formal development in relation to Goethe's fundamental idea of a polarity of forces in nature. Thus, reading Schönberg in light of Goethe creates a number of epistemological and metaphysical conjunctions helpful in interpreting Schönberg's musical project. Goethe's *Urpflanze*, as the matrix of living forces of contraction and expansion expressing themselves in plant growth, has strong similarities with Schönberg's conception of a musical Idea wherein all elements are progressively determined through a composition's development.

Furthermore, we saw how this notion played into Schönberg's conception of dodecaphony. Schönberg gave this system of composition its 'validity' by referring to Swedenborg and the principle of a unitary perception of a unitary musical space. The dodecaphonic principle is based on the reversibility of all elements (the permutations of the row), referring to an Idea or a structure that permeates all of the material but which cannot be found as such in any of its actualizations. With the reference to Swedenborg, Schönberg grounds this simultaneity of elements in the Idea existing in a spiritual realm outside time. However, if we read this through Goethe, the strong opposition between outside time and the temporal process weakens. Instead, a different conception of time closer to Deleuze's virtual time of coexistence is expressed. David Wellbery calls this

a specific configuration of time, which neither develops within, nor completely outside the time of the normal course of life. Rather, the experience of this

time-configuration moulds itself as an oscillation between the mutual excluding determinations of time as contemporaneity and succession. (Wellbery, 2014, p. 26)

Thus, Schönberg can be said to think about composition and music according to the conception of a virtual Idea informing the musical material, trying to create a musical language through dodecaphony which reflects and perhaps even emulates this intensive space-time.

This notion also has an epistemological dimension. For Goethe, the imaginative variation of sensible structures was the method by which to create the intuitive apprehension of the Idea. In the imaginative variation, the instantiation of a single example is in continuous variation and motion, such that the opposition between the universal and the particular is overcome in a thought intuiting (*Anschauende Urteilskraft*) a concrete universal. Ernst Cassirer claims that this notion was unique to Goethe. The metamorphosis from representation and abstract universality to the Idea is the discovery of *forces* working in the imagination. Goethe writes that the student of nature must become as 'comfortable working with the principles established above – expansion and contraction, compaction and anastomosis – as he would with algebraic formulas' (Goethe, 2009, p. 92). Working with imaginative contraction and expansion thus becomes a way to 'participate' in the forces of nature understood not as *natura naturata* but as *natura naturans* and thereby attain insight into the forces driving the formation of plant growth. How was this relevant to considering Schönberg's ideas about music?

As we saw, Schönberg had a vitalist conception of the tone as a living entity, considering it as inhabiting a potentiality. Thus, listening to a tone consequently means encountering this potentiality and being affected by it. Schönberg considered this potential to depend on the ability and sensitivity of the listener, but in general, the tone puts us into contact with the formative forces of contraction and expansion found in nature. The imaginative contraction of musical formation can now be related to the idea of imaginative variation, only the musical experience is *already* situating the imagination in a play of forces. Whereas the morphological student of nature must recreate form in the exact sensorial imagination to be accustomed to working with contraction and expansion in formal development, music already gives us a sense of this play of forces. In his study of form, Goethe suggests that one also reverses the order of events such that the successive development of plant growth is reversed in the imagination. Considering that the permutation of structure is a fundamental principle of dodecaphonic composition, the affinities between Schönberg and Goethe's images of thought become more apparent. In both cases, the imagination becomes a play of forces through which a formative *process* is sensed.

As mentioned when considering the work conducted by Matthew Arndt, Schönberg considered tonal and atonal music to display the play of these formative forces in different ways. Whereas tonality gives rise to a formal development based on the alternation between tension and release, employing the forces of chronological time, atonal – and perhaps even more, dodecaphonic music – expresses the polarity of these forces simultaneously. Against this background, I followed John Covach's suggestion that Schönberg's idea of dodecaphony not only seeks to reflect a unitary musical perception and space but also embodies an aspiration to create a musical process by which listening can come into contact with the musical Idea.

If music can be understood to function in this Goethean way in Schönberg's image of thought, then it already intersects with the role that music and art play for Deleuze. The idea that music can bring about a direct encounter with intensive forces and open to time in its virtuality can be directly related to how dodecaphony has been understood above. The validity of structural thinking, that is, the permutation of a row, was said by Schönberg to be demonstrated by a unity of musical space and perception comparable to Swedenborg's heaven. The Goethean principle of raising temporal succession to the simultaneity of coexistence by continuous variation in the imagination is thus a way to bring Schönberg's musical thinking to Deleuze and Guattari's idea about music and intensive forces.

However, there are also clear discrepancies in the respective lines of thought. These discrepancies become clear if we situate the reading of Schönberg's musical thinking in relation to Deleuze and Guattari's epochal reading of music assemblages. Whereas Romanticism is characterized as a continuous variation of matter and a continuous development of form where forces are grasped in the relationship between matter and form, the problem of a direct encounter with forces is developed in the Modern Age. As discussed in Chapter 3, these distinctions may be considered heuristic generalizations and relativized by other variables, such as the listener's capacity to be affected and state of force. Nonetheless, if one should assess the understanding of Schönberg's Goethean thinking in relation to this epochal reading, Schönberg would perhaps vacillate between Classical, Romantic and Modern assemblages. Deleuze and Guattari would most probably consider his preoccupation with form and the striated system of dodecaphony as the Classical tendency of imposing form on matter. Schönberg's way of thinking appears little aligned with their diagnosis of the Modern Age as an age in which there 'is no longer a matter that finds its corresponding principle of intelligibility in form' (Deleuze & Guattari, 2007, p. 342), insofar as he is very much occupied with the question of form and comprehensibility and presents the principle of dodecaphony as a new way to achieve formal unity (Schönberg, 1950, pp. 105–107).

The difference in Deleuze's approach can also be seen regarding the doctrine of the faculties in *Difference and Repetition*. As seen in Chapter 2, Deleuze writes that intensive difference must be apprehended directly in the sensible. Following the Kantian framework also found in *Difference and Repetition*, the imagination is an intermediary between sensibility and thinking, schematising the manifold for recognition. While Deleuze reconfigures the concept of the imagination according to the passive sub-representative synthesis grounded in matter itself, how does Schönberg's preoccupation with form and structure fit with Deleuze's doctrine?

On the one hand, I read Schönberg as interested in creating music that reflects pure virtuality, unassimilable to any representational framework, and I understood this operation according to a Goethean morphological idea in which the imagination is raised to a field of intensive difference. On the other hand, we can note a strong discrepancy between Schönberg's occupation with form and intelligibility in sound and Deleuze and Guattari's more materialist point of departure. Is there a way to reconcile this apparent gulf in their approaches to the sensible aggregate?

Although sensibility and imagination are two distinct faculties or levels of experience with greater or lesser proximity to the intensity enveloped in sensible qualities, it is not clear that this would necessarily imply that intensities could not be enveloped in imaginative activity and give way to a direct encounter with intensities by means of such a mediation. Imaginative activity as the formation of musical experience is a process entangled with the forces of sensation. The contraction of time in the imagination, yielding musical formations, depends naturally on the singular impressions of the tones being contracted into temporal relations. As such, difference is drawn out of the sensation and folded into imaginative activity. This may yield new relations of difference, making the imagination itself approximate a differential process.

This may open a door to understanding the notion of sensation in relation to formal processes. Sensation, as intensive difference apprehended directly in the sensible, does not necessitate a pure and formless sensible impression, as if the apotheosis of music becomes sound as close as possible to noise. Rather, the articulation of formal processes serves to create a field of intensive difference. Following such an understanding, the effect of Schönberg's Goethean principle of the continuous variation of structure could perhaps be seen as pushing the musical assemblage towards the Modern question of a direct encounter with intensity. By means of a formal process pushed to the extreme, intensive difference would be wrought from the sensation of structural differentiation in the imagination. In this case, the principle of generating a direct encounter with intensive forces is not opening to the microperception of the sonic matter of a process in the musical imagination wresting difference from a continuous variation of the

structure. In this interpretation, rather than a direct sensation of the intensive force of sonic matter, Schönberg's music creates a sensation of imaginative activity itself.

I am aware of the simplification underlying such a distinction. Any musical work will arguably have to rely on the imaginative contraction of time into formal relationships, however fragmented and secondary these functions are in relation to the task of rendering forces of sonic matter. Similarly, a work whose principle is formal structures organized through imaginative contraction would implicate the forces of sonic matter. In Schönberg's case, we can further note his conception of *Klangfarbenmelodie* as an idea directly related to the immediacy of sonic matter, its dynamism, intensity and timbre coming to the forefront of musical aesthetics.

Yet another complicating factor is the historical development of the serial principle. As we saw, Boulez claimed that Schönberg betrayed his own innovation by treating the row as a theme and introducing traditional formal elements. If this is the case, the natural consequence of Schönberg's formal principle would be the formation of a new musical (serial) language that operates according to a new (serial) principle, namely that of difference. This may be related to Deleuze and Guattari's claim that new musical material was born during the twentieth century and that, in this material, the question of form was replaced by that of forces. In terms of exploring the principles and images of thought operating in musical creativity, this point could have been followed by a discussion of how striation can yield new smooth spaces and vice versa, attempting a history of the mutation of images of thought in Modernist music from the perspective of Deleuze and Guattari. However, such a discussion would be beyond the scope of this work and can only be gestured to here.

Despite the simplification, I believe the differentiation made between the imaginative form and sensation as pure intensity can be informative for an approach to musical images of thought in relation to transcendental empiricism. In discussing the doctrine of the faculties in relation to his transcendental empiricism, Deleuze also extends the question of a transcendent exercise to the imagination:

We ask, for example: What forces sensibility to sense? What is it that can only be sensed, yet is imperceptible at the same time? We must pose this question not only for memory and thought, but also for the imagination - is there an *imaginandum*, a *phantasteon*, which would also be the limit, that which is impossible to imagine? (Deleuze, 1994, p. 143)

Is the unimaginable *imaginandum* that which informs the musical thinking of Schönberg? If one takes seriously Schönberg's words about dodecaphonic thinking gaining its validity from

the idea of an (unimaginable) unitary perception of a unitary space corresponding to the musical Idea – exemplified by Swedenborg’s experience – this synthesis of ideas appears viable.

The above has sought to develop an image of thought that is operative in Schönberg’s musical poetics and can be understood in relation to Deleuze’s transcendental empiricism. I have argued that one can see a relationship between the ideas presented above and Deleuze and Guattari’s claim that music in the twentieth century came in the service of a cosmic virtual continuum. To perceive and live this continuum and make it the object of creation is the prospect of transcendental empiricism understood as a speculative praxis. If music came in its service, and Schönberg’s Goethean image of thought can be understood as one form of this development, then the project of transcendental empiricism in which music plays a constitutive role has been followed into one of its rhizomatic threads.

7.2 Messiaen: Creating an Intensive Experience of Time and Microperception

Olivier Messiaen writes that the directional meaning of music is dazzlement, and in the chapter on Messiaen, the techniques and ideas behind the music of dazzlement were read as another way to approach what it means to create a direct encounter with intensity.

My reading of Messiaen centred on his ideas about time and resurrection, as well as the sensations of colour and sound. In Messiaen’s Christian image of thought, the resurrection of Christ figures as an all-important event. However, taking Agamben’s reading of St. Paul, the resurrection is not only a past event but belongs internally to time itself. Agamben’s reading makes it possible to treat the idea of resurrection as a question concerning temporal experience and existence. In this perspective, the resurrection from death to life concerns not only the question of a post-mortem existence but also the life and being of time itself. In this way, we can understand Messiaen’s claims that the musician can come close to the next world and work on time in order to give rise to a sense of the malleable and transformative time of resurrection itself, and that music can bring about a transformation such that time becomes space and space becomes a superimposition of coexisting durations. The contraction and expansion of time in his rhythmic techniques were compared to the contraction of time Agamben found in St. Paul’s notion of the time of the now, *ho nyn kairos*.

Using Agamben’s reading of St. Paul, an epistemological connection was drawn between Messiaen’s rhythmic techniques and the idea that a contraction of time can reveal a virtual

temporality of coexistence. Agamben uses the Pauline notion of recapitulation as an example of this idea, comparing it also to the panorama allegedly experienced in near-death experiences. Agamben also suggests the work of art (poetry) as a soteriological device or 'machine' that can transform the experience of time and thus grasp the time that we are.

This logic of time can be found also in Deleuze's philosophy. In the second chapter, we saw how Deleuze explains the contraction of time in the first passive synthesis as creating the foundation of chronological time. While the passing of the present is said to be grounded in the second synthesis, the actualization of the virtual is the condition for the passing of time. This virtual is the pure past which has no present, the co-existence of all past. Deleuze here follows Bergson, who says that time is not preserved in the actual. The actual, or matter, is only ever present, but time is also virtually real as pure past, preserving itself in itself. Thus, at the heart of the contraction of time in the first synthesis, we find an intensive point at which time ceases to be the material time of Chronos and opens to the virtuality of Aion. The conversion of time into a complex of superimposed times that Messiaen speaks of as the event of dazzlement can thus be philosophically accommodated by the logic of the sub-representative syntheses of time. If music can give us access to this intensive point in time, chronological time would 'end' and open to the virtual as such.

While the notion of resurrection seems very foreign to Deleuze and Guattari's thought, there are in fact possible converging ideas on this point. As we saw in the account of the temporal syntheses presented in Chapter 2, in the third synthesis of time, when thinking breaks with the model of recognition and accesses the sub-representational domain, thinking is born in thought as intensive life. In this connection, Deleuze writes that 'there is an experience of death which corresponds to the third synthesis of time' (Deleuze, 1994, p. 114).

Can we not hear an echo between Deleuze's philosophical metamorphosis of the representational 'dead' thought to intensive, non-organic life, and Messiaen's claim that dazzlement can bring a foretaste of the time of resurrection? Similar to how death is experienced in the third synthesis, Messiaen writes that the experience of dazzlement transforms the 'most hidden "me", the deepest, the most intimate, and dissolves us in a most high Truth which we could never hope to attain' (Messiaen, 1986a, p. 63).

This is not to say that Deleuze shares Messiaen's Christian notion of resurrection. Not only does Deleuze not have any notion of a divine individual like Christ as the 'giver' of such an event, but he also does not speak of a resurrection of a form (the body or the individuality of the person) but simply of an experience of death that leads to a different conception and experience of an intensive life. As much as Messiaen's Catholicism is foreign to Deleuze and

Guattari, Messiaen would not endorse their virtual impersonal play of forces. Nonetheless, Deleuze and Guattari's idea that there is an intensive point at which death can be *experienced*, where life and death become indistinguishable, is on some level comparable to Messiaen's Christian idea of resurrection as a potential mystical experience to be had during earthly life.

The Deleuzian logic of contracting time to reach the sub-representative constitution of the living present, and further apprehend the intensive forces in their free, non-organic and intensive state, can thus be related to Messiaen's ideas about ending time through rhythmic permutations. Seen through Agamben's reading of St. Paul, Christ, or 'the time of resurrection', is at work in the very heart of chronological time in Messiaen's view, in a way that is comparable to Deleuze's claim that the second sub-representative synthesis of time differentiates the first from itself while preserving it as the past. In Deleuze's transcendental empiricism, art can counter-actualize the present and function as a way to regain access to the virtual via intensive difference. Similarly, in Messiaen's thinking, music can convert chronological or 'fallen' time into the time of the now.

The other element explored in the chapter on Messiaen was his ideas about the function of sound-complexes. Relating Deleuze's ideas about microperception to Messiaen's focus on after-images and natural resonance – their synaesthetic connection and intensification through interference – I explored the concept of dazzlement in relation to Deleuze and Guattari's idea of a direct encounter with intensive forces. If, according to Deleuze, normal perception is a contraction of an infinite molecular field of microperceptions separated by a differential threshold, then Messiaen's experimentation with the relations between colours, after-images and overtones can be understood as an experimental site approximating this differential threshold. If sensations of colours and overtones envelop dynamism and vitality, then the simple act of experimenting with these phenomena may bring sensation closer to the differential threshold. The importance Messiaen attributed to this kind of experience is seen not only in the many statements he made about it but also in his claim that it is not possible to truly understand music if one has not experienced these phenomena (Messiaen, 1986a, p. 62). Furthermore, Messiaen also claimed that these sensations were the basis for everything he did and that he had introduced this kind of experience to the students in his class at the conservatoire (Messiaen, 1986b, p. 115). Messiaen's work on these subtle dimensions of sensation is arguably as important for understanding his compositional practice as, for example, his transcription of and inspiration taken from birdsong. Affirming the centrality of this kind of experimentation, Messiaen's compositional techniques have an experimental-experiential background which can teach us about his conception of music and how music can work. Messiaen's technique of creating overtone interference in his chords can be understood as a way to augment this intensity, bringing listening towards the differential threshold where

microperceptions swarm to harness intensive forces. This is precisely what artists do, according to Deleuze and Guattari:

the artist turns his or her attention to the microscopic, to crystals, molecules, atoms, and particles, not for scientific conformity, but for movement, for nothing but immanent movement; the artist tells him- or herself that this world has had different aspects, will have still others, and that there are already others on other planets; finally, the artist opens up to the Cosmos in order to harness forces in a 'work'. (Deleuze & Guattari, 2007, p. 337)

For Messiaen, dazzlement is a breakthrough towards the beyond, a foretaste of the life of resurrection in which we will live in a malleable and transformable duration. From the perspective of Deleuze's philosophy, this 'beyond' can be understood as the very ground of every perceptual experience. In the same way that time is a virtual-actual circuit passing through the intensive field of individuation, so all perceptual and affective states are actualizations of this microperceptual and intensive field. Transcendental empiricism finds this pre-individual field of intensive difference to be the condition for real experience, and Messiaen's musical thinking can serve as a case study for such a trajectory. Even if Messiaen's concepts are related to his religious belief in a 'next' world, a similar logic as Deleuze and Guattari's can be discerned, both with regard to the way Messiaen thinks about the rhythmic manipulation of time and how he works experimentally with sensation, approaching the differential threshold of microperception. The work with sound-colour, such as chords of interference, can be compared to the idea of how rhythmic contraction can make the first sub-representative synthesis open to the second. When the sensation of sound overflows the representational grasp, listening is not only overwhelmed in terms of perceptual recognition. Because of the nature of the sound-complexes explained above, listening is also worked upon in its microperceptual dimension. Thus, the experience of dazzlement Messiaen describes can be understood as an event in which the molecular ground of imaginative contraction rises to the surface. Experience penetrates the imaginative contraction of time and is constituted in and as the second passive synthesis of virtual time.

Messiaen's reference to his own musical experience of dazzlement, superimposed upon his paraphrasing of Ruusbroec given as an example of what dazzlement actually involves, shows us Messiaen's image of this breakthrough. Naturally, one cannot know whether Messiaen's idea about dazzlement was compiled from several elements and sources or whether he considered it an actual experience of his own. However, this uncertainty is not a problem. All the elements of the philosophical apparatus employed give Messiaen's concept of dazzlement a consistency

that resonates with the Deleuzian idea of art as transcendental empiricism, opening to an experience of the being of the sensible as intensive life.

7.3 Scelsi: The Intensive Field of the Tone-Monad and Pure Perception

Turning to Scelsi, we met the claim that listening can perceive the depth dimension of a tone. Following indications and references given by Scelsi, I developed the concept of the tone-monad to develop a philosophical understanding of what this may entail. By expanding Goethe's idea about contraction and expansion as potential forces within a tone, I came to the anthroposophical notion of an 'etheric' force-field of nature implicated in sound (and every other sensible being). Against this background, I brought the tone-monad into conversation with Deleuze's concept of intensity. This provided a theoretical basis for the idea of the tone as a potential portal, at least in principle, helping to make sense of Scelsi's idiosyncratic claims. If the sensation of a tone is based on the contraction of vibrations, and these vibrations are the cancellation of intensive differences implicating a field of intensive forces, then the sensation of these differential forces will be acquired by penetrating the sub-representative temporal syntheses of listening. According to the idea of a differential threshold separating perception from a genetic field of microperceptions, the perception of a single tone is the result of a multitude of intensive differences. These differences are no longer intensity measured on the actual, as the intensity of the physical wave. If the perception of a tone gives us intensity in its covered state, explicated as a certain quality of pitch and timbre, then it is intensity itself which takes listening beyond this perception into the intensive field of difference. At this level of reality – the plane of consistency or BwO – subjectivity and intensive matter are no longer separable, as a larval subject belongs to each intensive difference. On the trajectory of Deleuze's transcendental empiricism, one also encounters the intensive state of time as virtual co-existence, and Scelsi's claims about the interior space of a tone may be read as pictorial expressions of such a transcendental experience of the tone-monad.

The logic behind this idea is similar to what was explored in connection with Messiaen's work with sound-colour. However, Scelsi's approach could be considered even more elementary. Whereas Messiaen constructs several chords and sound-complexes whose function can be understood in relation to the concept of microperception, Scelsi claimed not to construct or compose but, in the words of Tristan Murail, simply to pose and de-compose sound. By utilizing and dwelling on microscopic fluctuations in sonic energy, Scelsi displays sound as

a medium of intensity. According to him, this was less a question of composing structures than simply sensing the spiritual movements of the tone itself.

Scelsi's ideas about music as a means to enter this intensive dimension were influenced by Eastern spiritualities as well as theosophical and anthroposophical ideas (such as those from Rudhyar and Steiner), and he considered meditation and yoga relevant tools for a musician. For Scelsi, to be a musician means to engage this intensive force, and the methods to learn to do so are directly relevant to musical practice. To understand how meditation plays a role in this idea of listening, I presented Steiner's notion of cognitive yoga. Steiner's fundamental idea of cognitive yoga is to develop a state of pure perception on the basis of pure thinking. By presenting an outline of Steiner's account of cognitive yoga, the precondition for an intensive experience of the tone as professed by Scelsi was expounded, and the relationship between anthroposophical ideas and Scelsi was made more explicit in their methodological import.

While Scelsi's theosophical and anthroposophical orientation may seem as far from Deleuze's philosophical system as Messiaen's Christianity, it is possible to find methodological overlaps between Scelsi's project and Deleuze's transcendental empiricism. I have already argued for a conception of the tone-monad that resonates with Deleuze's concept of intensity. Regarding methodology, the central resonance is Steiner's notion of pure perception.

For Deleuze, the encounter with intensity is both that which raises sensibility to its transcendent and disjointed exercise and that to which sensibility is raised: sensation becomes intensity. This is sensibility acting on its own, released from common sense where all the faculties converge under the form of a self-identical object. In representation, memory, conceptual recognition and all the various sense modalities converge to produce the recognition of an object. In this form of experience, difference is covered by identity. In the encounter with intensive difference in its free and untamed state, sensibility is no longer informed by the other faculties. That is, sensibility is disjointed.

Despite other obvious disjunctions between Steiner's ideas and Deleuze's philosophy, we can relate the idea of a disjointed sensibility to Steiner's notion of pure perception. Words should not stand in the way here, as pure *perception* only signals the form of experience, that is, it points to the fact that perception is brought into a direct relationship with the forces acting on the body – although acting 'on' still gives a misleading image of a subject–object relation. This idea should not be modelled on the form and content of perception given in a normal representational experience. The notion of pure perception arguably comes closer to what Deleuze terms sensation in itself as intensive difference. The microperceptions that Deleuze

claims generate the consciousness of macroperceptions are forces that belong as much to the organism as to the external world. They traverse this distinction as a plane of immanent composition, and pure perception can be understood as such a perception immanent to the thing perceived:

on the other plane, the plane of immanence or consistency, the principle of composition itself must be perceived, cannot but be perceived at the same time as that which it composes or renders. ... Perception will confront its own limit; it will be in the midst of things. (Deleuze & Guattari, 2007, pp. 281–282)

Steiner's notion of pure perception shares the same idea of immanence wherein perception belongs to things themselves, taking place within a field of forces productive of normal perception. For Steiner, this kind of perceptual immanence is the result of an *active* inhibition of conceptual and associative elements. This activity of pure thought is not found in Deleuze's account of the encounter with intensive difference. Rather, in *Difference and Repetition*, pure thought is an outcome of the encounter with intensive difference. The principle of Steiner's cognitive yoga as a pure thinking activity can be developed from Fichte's *Tathandlung*. This is said by Steiner to make thinking into pure (spontaneous-receptive) 'will', which, in turn, becomes the basis for pure perception. Pure thinking is also the basis for meditation, such as the meditation on lifeforms that Scelsi refers to and claims to know from experience.

While it may not be possible to know what truth these various claims possess, a similar 'logic' can be recognized: a pure and direct encounter with an intensive life takes perception beyond the subject–object relationship and makes it into an immanent perception characterized by relations of force. Notwithstanding the obvious differences in other respects, these characteristics are common to the descriptions provided by Scelsi, the methodology of Steiner's cognitive yoga and Deleuze's notion of a disjointed and transcendent exercise of sensibility. In Deleuze and Guattari's work, this vitalist and immanent plane of thought is mobilized philosophically, while for Scelsi, it informs his musical thinking and creativity. Thus, based on this epistemological foundation and the concept of the tone-monad, I suggest that Scelsi's musical thinking, as reconstructed above, can be instructive for how music can function in the creation of transcendental empiricism.

7.4 A Philosophy of Music

My reading of the musical thinking of Schönberg, Messiaen and Scelsi has produced three musico-philosophical prisms through which to regard transcendental empiricism. This has meant drawing my reading of Deleuze and Guattari's philosophy as a speculative practice towards the ideas and experimentations found in engagement with music, and immersing the theories, ideas and claims of the composers in Deleuze and Guattari's philosophical territory to circumscribe that line of flight which the encounter with intensity enables. This reading was motivated by the desire to understand what a direct encounter with intensive forces can mean, whether and how it could be found in musical thinking and what this could teach us about transcendental empiricism as a philosophical-aesthetic operation. Such a reading will naturally entail displacements as well as constructed interferences between worlds of thought that may have little to do with each other on the surface. Nonetheless, if artificial interference enhances the aura and resonance of a chord, interferences of different spectra of thought may reveal new colours and molecular movements of thought that resonate beneath their historical, cultural and intellectual strata. This idea has driven my reading of Schönberg's Goethean imagination, Messiaen's microperceptual and rhythmic contraction and Scelsi's musical meditation on sonic intensity and I have suggested that each can be understood as pointing towards an experience of intensity and virtuality in itself. I have thus read each composer's way of thinking as an example of a musical approach to transcendental empiricism where, as Deleuze says:

The work of art leaves the domain of representation in order to become 'experience', transcendental empiricism or science of the sensible. ... Empiricism truly becomes transcendental, and aesthetics an apodictic discipline, only when we apprehend directly in the sensible that which can only be sensed, the very being of the sensible: difference, potential difference and difference in intensity as the reason behind qualitative diversity. It is in difference that movement is produced as an 'effect', that phenomena flash their meaning like signs. The intense world of differences, in which we find the reason behind qualities and the being of the sensible, is precisely the object of a superior empiricism. (Deleuze, 1994, pp. 56–57)

What should one take away from this investigation, for philosophy's engagement with the question of a direct encounter with intensive forces and for work with music? The major problem and perhaps contribution of the previous chapters have been to circumscribe some experimental conditions of transcendental empiricism and demonstrate how they can be found in relation to music and sound. What then can be said about the relation between transcendental empiricism and music?

If music brings the listener to the very threshold of intensive difference, then music can be taken as an apprenticeship in intensities. Chapter 3 suggested this much and outlined also some concepts corresponding to the idea of an encounter with intensity independently of the qualities in which it is otherwise cancelled. According to the understanding developed in the three previous chapters, the visions of music that can be found in the work of Schönberg, Messiaen and Scelsi all testify to what Deleuze and Guattari claimed: music can give us access to a grain of intensity in its pure state. But this is also the beginning of a creation of thinking in thought. To create a direct encounter with intensity, to discover an intensive difference in the sensible is, as we saw in *Difference and Repetition*, that which can lead to thinking. In the encounter with intensive difference a fuse runs through the faculties, unhinges them from common sense and makes each faculty return to the element from which it originates. Music has thus been portrayed as having an intimate relation to the 'intense world of differences' (Deleuze, 1994, p. 57) and consequently also with the creation of thinking in thought that Deleuze's transcendental empiricism outlines.

I have read transcendental empiricism in the context of music. However, Deleuze reminds us that his philosophy is from the very start a philosophy *of* music in which 'philosophy is truly an unvoiced song, with the same feel for movement that music has' (Deleuze, 1995, p. 163):

For us, philosophy is nothing but music, from the most humble melody to the grandest of songs, a sort of cosmic *sprechgesang*. The owl of Minerva (to borrow from Hegel) has its screeches and its songs. The principles in philosophy are screeches, around which concepts develop their songs. (Deleuze, 2007, p. 316)

From this perspective, the relation between music and philosophy would be nothing external but rather depend on an internal difference in which it is 'not a matter of setting philosophy to music, or vice versa. Rather, it's once again one thing folding into another: "fold by fold"' (Deleuze, 1995, p. 163). The question of finding this internal difference between philosophy and music such that thinking can discover an intensive music at the heart of itself is thus an open question the thesis ends with. Can this 'fold' be opened and lived as a field of immanence? The present work has sought to suggest some conditions for such a problematization in the philosophy of Deleuze and Guattari and in the musical thinking of three composers who significantly impacted the music of the twentieth century. The horizon for this exploration is the problem of how to make philosophical thinking and musical practice ingredients in a 'chemical' experiment that can ignite an intensive fuse, unhinge the faculties and give birth to a thought at once intensive and musical.

7.5 Conclusion

This thesis has explored the concept of transcendental empiricism in the context of music, reading Deleuze and Guattari's philosophy and the theories and ideas of three composers. Chapter 2 presented transcendental empiricism as outlined by Deleuze in *Difference and Repetition* and connected it to concepts from Deleuze and Guattari's joint collaboration. Central in this account is the idea that an encounter with intensity *in itself* can spur a disjointed exercise of the faculties. In my reading, I showed how this encounter belongs to Deleuze and Guattari's other central concepts, such as the BwO, the notion of a pedagogy of the senses and the function of art.

Chapter 3 transposed this problem into the musical domain. Through the example of a melody, I argued that such musical experience brings one to the threshold of the sub-representative synthesis of time in which time is deployed as an intensive event. Following Deleuze's terminology in *Difference and Repetition*, I conceptualized this experience as an imaginative contraction of time and suggested Ernst Kurth's notion of energetics and Daniel Stern's vitality forms as helpful concepts for exploring intensity within musical experience. I discussed the notion of a direct encounter with intensive forces and contrasted it with the first account, arguing for the importance of problematizing the distinction between covered and unmediated intensities. I argued that this distinction corresponds to that between the concept of an imaginative contraction and a molecularized perception. The notion of a molecularized perception led to a discussion of the function of aesthetic and musical experience where the boundaries between art and non-art and music and non-music were found to be porous and where the realization of a transcendental empiricism through music was conceived as an apprenticeship in becoming. In other words, this circumscribed an encounter with intensity in itself as a transformative experience. I suggested this can also be understood as a process of intensification and learning and that the idea of transcendental empiricism in music needs both perspectives.

The question of whether the problem of a direct encounter with intensive forces and thus music as part of transcendental empiricism could be found in the ideas and theories of composers from the twentieth century underpinned Chapters 4 to 6. These chapters explored this question by means of a philosophical reconstruction of the ideas and influences of Schönberg, Messiaen and Scelsi. All of these composers were interpreted as preoccupied with the question of how to create music that can open to an intensive and virtual domain. In these chapters, I mobilized several philosophical ideas to interpret and give consistency to the ideas of the composers. The main goal was to understand their thinking and approaches to music and sound – their vision of music – to see how they could be folded into the ideas and operation

that Deleuze describes in his transcendental empiricism, thus creating a mutually illuminating encounter. With Schönberg, I found that his notion of the musical Idea could be understood in a Goethean framework in which dodecaphony functions as a system aimed to reflect the intensive nature of the Idea, making musical experience approach a field of intensive difference. Messiaen was seen as concerned with microperception and an intensive time at the heart of chronological time, employing his compositional techniques as well as contemplative practices to access this intensive dimension. In the chapter on Scelsi, I developed the notion of the tone-monad as a field of intensive forces and pure perception as its epistemological equivalence, suggesting these to be the concepts adequate to Scelsi's musical thinking. In all three cases, I thus found the idea of a direct encounter with intensive forces to be at work.

The thesis has therefore demonstrated that music can be understood as an experimental site traversed by a number of different but also related problems and practices related to an experience of intensive difference. Furthermore, I have shown that the problem of intensive difference can be found in the musical poetics of three composers from the twentieth century and that music can be conceived of as constitutively involved in the project outlined by Deleuze and Guattari here designated with Deleuze's term transcendental empiricism. As much as a philosophical position this is also an ethical and aesthetic challenge that can only be realized through practice: to perceive and live an entire differential play of forces.

However, the event is a chance encounter, Deleuze writes. The intense world of difference is not amenable to volition, as if transcendental empiricism was simply the question of applying a method. Whether it will be the *Quartet for the End of Time*, a little tune or an indeterminate sound that jolts difference out of the grips of identity cannot be determined in advance. Insofar as the state of force on the part of the subject is a codetermining factor, perhaps any sensation can end up as a sign of intensive difference. For this very reason, the conditions of the event are the place of active experimentation, and Schönberg, Messiaen and Scelsi have been read as examples of such experimentation. The philosophical discussions above do not merely concern the work of the composers but also present images of their thought that can intersect with the project of transcendental empiricism on several levels. Beyond suggesting how music has been thought about and how techniques have been employed to make music into a machinic ensemble of becomings, these readings also circumscribed autonomous processes of experimentation: continuous variation of imaginative structures; after-images and overtones; the Fichtean *Tathandlung* or the affective immersion in nature. All these are elements that can intersect with all the experiential intensities that music gives rise to through listening, playing and composing. What is crucial in all this is the ethical choice of not reifying subjectivity but instead affirming it in its heterogenetic becoming as an immanent Other within oneself no less than in the other.

Lodge yourself on a stratum, experiment with the opportunities it offers, find an advantageous place on it, find potential movements of deterritorialization, possible lines of flight, experience them, produce flow conjunctions here and there, try out continuums of intensities segment by segment, have a small plot of new land at all times. It is through a meticulous relation with the strata that one succeeds in freeing lines of flight, causing conjugated flows to pass and escape and bringing forth continuous intensities for a BwO. Connect, conjugate, continue: a whole 'diagram,' as opposed to still signifying and subjective programs. We are in a social formation; first see how it is stratified for us and in us and at the place where we are; then descend from the strata to the deeper assemblage within which we are held; gently tip the assemblage, making it pass over to the side of the plane of consistency. It is only there that the BwO reveals itself for what it is: connection of desires, conjunction of flows, continuum of intensities. (Deleuze & Guattari, 2007, p. 161)

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A Differential Play of Forces is a study of transcendental empiricism in musical contexts. It presents a reading of Gilles Deleuze and Félix Guattari's philosophical apparatus and explores how music can be thought of as functioning in the operation Deleuze terms transcendental empiricism. Central to transcendental empiricism is the idea of an encounter with intensive difference and the consequent experience of intensive and virtual forces.

The thesis sets out to explore this idea in three interwoven steps. First, it develops transcendental empiricism as a philosophical framework, expounding central notions related to time and aesthetic experience. In the context of this philosophical apparatus, music is then discussed as an encounter with intensity and what this may entail for our understanding of musical experience and its potential. The third part of the thesis explores the idea of experiencing intensive forces through music in the thinking and poietic of three composers of the twentieth century: Arnold Schönberg, Olivier Messiaen and Giacinto Scelsi. The thesis develops three 'images of thought' corresponding, respectively, to the composers' expressed theoretical ideas, identifying central concepts from Deleuze and Guattari's philosophy.

A mutual illumination of ideas about music and transcendental empiricism is thus presented, pointing towards a possible convergence between theory and practice, thinking and aesthetic experience as a differential play of intensive forces.

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