

Experiment and Experience

Compositional Practice as Critique

Lula Romero

Composer, Berlin

INTRODUCTION

During my formative years as a composer, I always felt uncomfortable with the ideal of “mastery” inherent in the figure of the composer. I was against its reactionary character and the hierarchy of powers that it implies. However, I have had conflicted feelings because as a person identified as a woman and as a migrant I need to exercise my agency in order to be heard. My research towards a compositional practice that fosters my agency outside the frame of the master composer is based on this conflict.

This figure of the master composer has been criticised by experimental practices embracing openness. Since then, experimentation has been assimilated in institutional composition; however, in composition schools and in some contemporary music practices there is an ongoing uncritical consensus that still understands composition as the “mastery” of skills and sound materials. Composition is thus understood as the manipulation and transformation of a material in accordance with a composer’s structure or idea—in other words, the imposition of a form onto formless material. This understanding implies a hierarchical division between a passive material and an active subject, the composer. Under this premise, art is the elevation of raw material by the abstract thinking of the subject. The material world is an object to be exploited and used by human thinking. The ideological aspects of this hylomorphism have been discussed by composers and theorists and have been continuously criticised by sound art, improvisation, performance art, and practices that embrace embodiment.

John Cage’s rejection of the subjective manipulation of sounds by composers is well known: let the sounds be “themselves.” This solution, also followed by some practices of sound art, implies the removal of the composer’s agency to varying degrees. In this understanding, the activity of the artist is that of presenting “raw” sounds before the listener. This approach has been artistically productive and successful in demonstrating the necessity of a critique in composition and in revealing the possibility of the agency of the material itself. However, the process of presenting things, of re-presenting reality, is not free

of ideology and subjective influence. A presentation of things implies a selection and a judgement of what is worthy of being presented. On the other hand, a re-presentation of things means an understanding or a translation of a reality into another code, which implies decisions, generalisations, and subjectivity.¹ Hence, the impossibility of eradicating some form of control by the artist and the inexistence of a non-representational sound in itself constitute the limitations of this position. Moreover, an external law is imposed on art here, which is thus limited to being the frame that exposes a sound phenomenon to be heard. In addition, a different hierarchical relation is built, a relation between an observant subject and a passively observed object.

Another practice that criticises the figure of the composer opens the agency of the musical event to others, such as in collaborative and improvisational practices. The critical potentiality of such practices has proved to be prolific and is well established in the figure of the composer-performer and the work of collectives. Although the question is far from being exhausted, I consciously centre my practice, and therefore the topics of this text, on the less-researched question of openness and its critical potential in the compositional process and in the relation between material and composer.

In light of social movements of reclaiming agency by members of excluded collectives, current changes in the conception of subjectivity, and new conceptions of non-hierarchical ways of interacting with the world, I find it necessary to rethink the category of the composer and its critique. In this current context, the solution proposed by Cage of rejecting the subject is not enough. A member of an excluded collective—woman, queer, non-white, marginalised, migrant—gains agency by acting. To negate the agency of the composer when she is a member of those collectives is to negate her agency once more. Still, this new agency of the composer is not to be gained by mastering the material and reproducing the same power relations. Therefore, I consider it essential to reformulate the critique of the figure of the composer and, in light of feminist theories, the nature of her agency.

Yet, what would the nature of this composer be and how can her agency be exercised? I try to answer this question in my compositional practice by fostering openness in the compositional process. In what follows, I discuss how a practice oriented towards openness in the process of composition and experimentation could represent a critical practice. I do so through the description of two main case studies from my compositional work. The critical aspects of my practice are related to my understanding of experimental composition and can be articulated along three different axes: the figure of the composer and her relation with material in the compositional experiment; the experience of the listener and the creation of new knowledge; and the place of experimental art in society and its critical potential. In so doing, I relate my practice to

¹ Even in experiences of field recording that claim to be devoid of any subjective influence there are decisions—microphone positioning, recording technology, and the performance situation, just to mention a few—that influence the presentation and perception of the thing itself.

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conceptualisations of material and experimentation in the arts and the sciences, as well as with feminist theories and practices. My method resonates with Philip Agre's critical technical practice, in the sense in which the critique relies on my own practice. The theoretical and aesthetic frames are understood as tools to understand and explain my practice; they should not be seen as a justification of my work or as guidelines to be translated into sound. The first part of this text is concerned with the possibility of establishing a non-hierarchical relation between material and composer in compositional practice. This section contains case studies of *Parallax* (2019–20) for symphonic orchestra and the fixed-media piece *MTRAK* (מטרקא) (2018). In the second part, I discuss how an experimental practice that fosters openness and multiple understandings offers knowledge different from that created by language. By doing so, my practice aims to contribute to the ongoing discussion about the possibility of knowledge generated in art. The third part involves a discussion of the role of music and art in society, its position as well as the nature of its critique.

EXPERIMENTS

Intra-actions between subject and material

To describe an alternative relation between composer and sound material with regard to my notion of the compositional experiment, I refer to Karen Barad's concept of the scientific experiment. In *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning* (2007), Barad, a quantum physicist and theorist, develops the concept of diffraction as a method and metaphor for the creation of scientific knowledge. Diffraction is a type of wave behaviour (figure 9.1). It is the interference² between two waves of water, light, or sound. Diffraction describes how two waves combine when the waves encounter an obstruction. In their interaction, a new pattern is created, which is called an interference or diffraction pattern. Barad sees diffraction as a possible way to research nature, in which observer and nature create patterns and interfere with each other. Following Donna Haraway, Barad proposes diffraction as an alternative to the metaphor of reflection conventionally used to describe the scientific method. The reflection method mirrors our knowledge—or image—of the world into the world, and understands the identity between our image and nature as true knowledge. In contrast, the diffraction method searches for differences and patterns of difference. The new knowledge emerges in the intra-action of waves and forces, in the intra-action of material and subject.

2. Karen Barad understands and uses the terms *diffraction* and *interference* interchangeably.

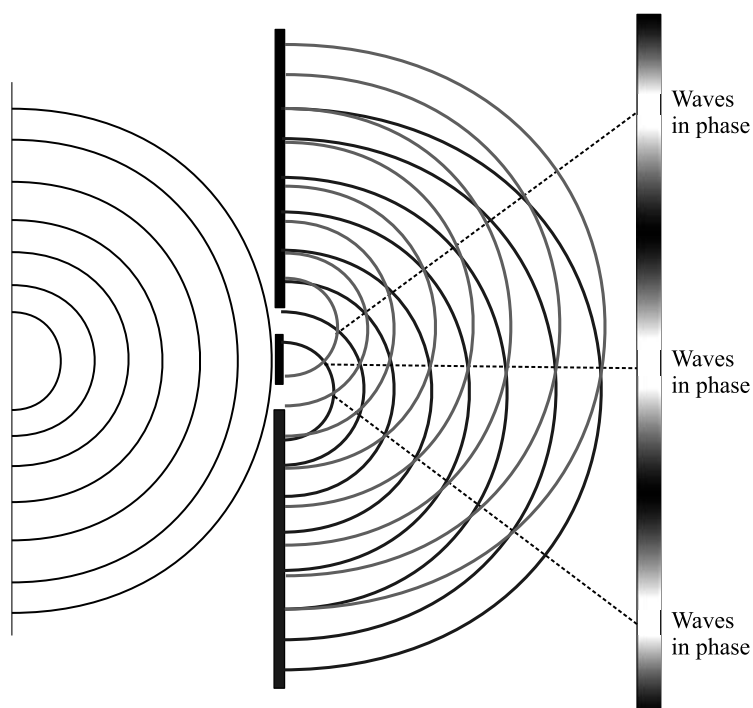


Figure 9.1.

I understand the notion of the compositional experiment as the interference between composer and material. The experiment is not produced when the composer imposes an idea or form onto a raw material, nor does it prove or disprove a previously existing theory or concept. On the contrary, it takes place in the encounter between the material and the composer and in the contingent patterns of diffraction created in this encounter. This type of experimental practice poses a critique of the “master composer,” while proposing a different relation in which the composer is not devoid of her agency. Hence, a critical experimental practice searches for the possibilities of the material and renders them audible in the musical work. In the intra-action between composer and material a new situation emerges, a musical event.

This intra-action between composer and material is not easy to identify. It happens in the composition process and is not always self-evident in the final result. However, I regard Alvin Lucier’s 1975 piece *Bird and Person Dying* as a remarkably clear example of openness in composition. An experimental approach oriented towards something that is discovered in the process and the intra-action between material and composer manifest themselves audibly in this piece.

Bird and Person Dyning is based on the phenomenon of heterodyning, in which two waves are combined in a non-linear system resulting in two new waves, which are the sum and difference frequencies of the first pair. During the performance of *Bird and Person Dyning*, the composer searches for the emergence of this phenomenon between two sources: the recording of an electronic bird call and the feedback created by a binaural microphone and a stereo loudspeaker system. Feedback and heterodyning phenomena depend on the movement and position of the performer and on the characteristics of the space in which the piece is performed. The sound result thus depends on the contingencies of the performance. The sound is not designed a priori but emerges in the piece, as a result of the composer/performer exploring the performance space. The musical work is the discovering, research, and creation of the piece by the composer and the material. It is the result of their interference, of the—not only metaphorical but in this case also literal—diffraction between two waves, the recording of the electronic bird and feedback, as well as the diffraction between the agencies of material and composer.

In *Bird and Person Dyning*, the process of composition happens during the performance. Still, the achievement of openness and intra-action between composer and material are not self-evident if the composition takes place prior to the performance. Several strategies have been proposed in the past to embrace openness in the process and to foster the agency of the material, as in stochastic and aleatory music or open scores. More recently, there have been compositional experiences oriented towards openness sometimes in relation to conceptions from New Materialism. These practices explore the physicality of instruments and performance and the concept of parametric decoupling, as in the work of Simon Steen-Andersen and Aaron Cassidy, and the sounds produced by the interaction between different frequencies, as in the work of Chiyoko Szlavnic, or concepts of material agency, as in the case of Ashley Fure's and Liza Lim's pieces.

Against this background, I will discuss two case studies that depict strategies oriented towards openness in my composition process.

MTRAK and Parallax

The phenomenon of heterodyning in Lucier's *Bird and Person Dyning* is the result of a non-linear system. In opposition to a non-linear system, the output of a linear system is proportional to its input. Linear systems can be analysed by examining their parts and constituent relations and their results are predictable. In this sense, linear systems as idealisations are important tools to represent reality and emulate behaviours. Still, nature does not always behave in a linear way. On the other hand, a non-linear system is difficult to analyse, its parts collide and intra-act with each other. Its results are not always proportional to its inputs and therefore it cannot be completely foreseen. In classical scientific conceptions of the experiment, linear systems are used to confirm theories. While linear systems are a means of translating ideas into music, non-linear systems do not necessarily prove or translate ideas into sound matter.

Non-linear systems can be used as the means to allow openness in the composition process and to enable a search for the unknown, as well as to intra-act with sound and to discover the musical work while creating it. In the diverse interactions of its parts, a non-linear system allows the material to have agency in the creation of the musical work.

The piece *MTRAK* (מטרקא) (2018)³ was created through a process in which its parts intra-act with each other. First, I create an audio file in the non-standard sound synthesis program *SEGMOD*,⁴ whose resultant synthesised sounds are the concatenation of simple periodic waveforms. This audio file becomes the basis for a granular synthesis process with two-channel output. The parameters of both channels are equal by default; however, the parameters of the second channel can be scaled with a factor. The granular synthesis process starts with given initial values for each parameter. Later on, the output of the granular synthesis controls some of its own parameters in a feedback process (figure 9.2). The transformed signal thus affects itself and this process is repeated recursively. In addition, I can modify other parameters of the granular synthesis process by using a MIDI controller, thereby also changing the feedback (figure 9.3). The sound result is an ever-changing, unexpected, highly dense, fluid sound that is partly controlled by me and partly controlled by itself. The influence of the feedback and of the actions that modify the feedback has immediate effects and affects subsequent transformations. The sound is influenced by the nature of the *SEGMOD* non-standard synthesis system and by previous changes and actions. The material and its development affect each other. Moreover, instead of being the translation of the composer's idea forced onto sound, *MTRAK* is an encounter between the material produced by the system and the composer. This encounter manifests itself in different unexpected appearances and transformations. The diverse iterations retain a coherence that is based on the tracing of relations between the different reappearances of the material. In doing so, the musical work maintains cohesion while advancing in continuous unexpected drifts.⁵ A musical experiment that fosters openness creates unexpected outcomes but can also display multiple results, multiple behaviours, relations, and activities, allowing for the emergence of different understandings of itself.

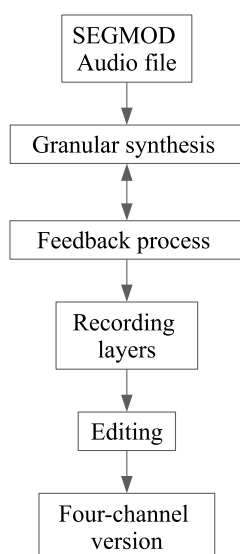


Figure 9.2.

³ The piece was created for the CD *SEGMOD* (Dumpf Edition #12, 2019). See, <https://dumpfedition.bandcamp.com/album/segmod>.

⁴ By Luc Döbereiner and Martin Lorenz. See <https://github.com/lucdoebereiner/segmod>.

⁵ A stereo version of *MTRAK* can be heard at <https://dumpfedition.bandcamp.com/track/mtrak>.

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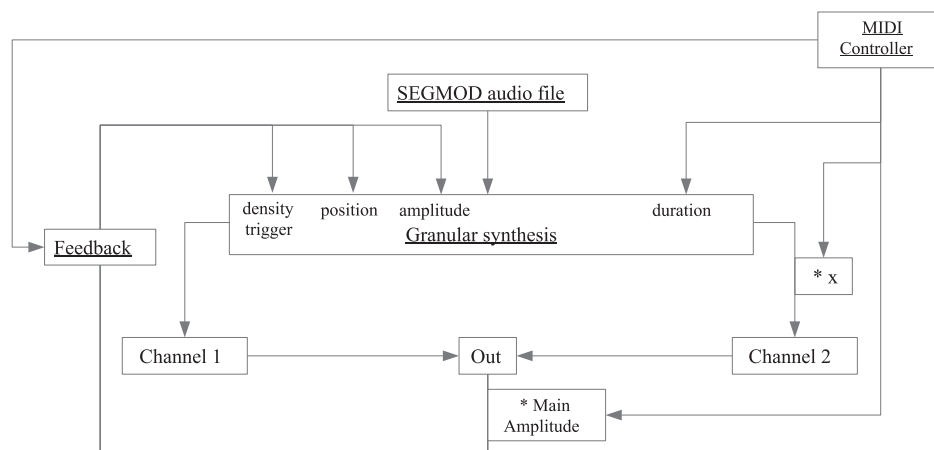


Figure 9.3.

Well-known strategies to achieve multiple results include the use of open scores—as in approaches from the 1960s—the use of different degrees of improvisation, and the blurring of the performer-composer distinction. In such works, the result differs between each iteration of the piece and each performance. In my compositional practice, I seek another strategy to achieve a multiplicity of results. I work towards the creation of different simultaneous results and understandings of the same sound event, which can be described as open and coherent, through the spatialisation of sound sources. A sound event, while retaining its identity, is differently understood by the listener depending on her position in space and in relation to the sound sources. Multiple understandings are thus possible depending on the space. In doing so, I switch the focus from time to space, from the shared agency with the performer to the shared agency with the material and the listener.

In order to create these synchronous multiple understandings, I formulate a network of relations localised in space that is open to be traced and retraced by the audience. Parameters, such as frequency, duration, density, timbre, and the amount of distortion or noise, are arranged according to scales and categories, which are inherently connected to a spatial dimension.⁶ These categories are generalisations that I use as tools in order to enable the production of concrete sound materials, which are conceived as processes rather than as static objects. Still, the resultant materials are not the mere summation of the different parameters,⁷ they are rather the result of the intra-action and encounter between different layers of parametric organisation. In this way, sonic identities

⁶ An interesting project on the use of parametric spatialisation is the one developed by Nyström (2018).

⁷ A multiphonic is a clear sound example of a result not being equal to the sum of its part. Although a multiphonic on a clarinet is the result of the interaction of a number of partials, dividing up these partials so each is played by a different instrument will not result in a multiphonic. In this sense, the clarinet can be described as a non-linear system.

emerge as sorts of “phenotypes” that are always more than their “genotypical” parametric description. The audible commonality of these sound materials can be described phenomenologically in terms of family resemblances. Since such family resemblances are perceptual categories, they create a connection between my imaginative listening in the composition process and the listeners’ experience of the performance. The creation of meaning is thus always distributed among perception, composition, performance, and space. Semantic functioning, such as causation, contrast, and continuation, remains ambiguous and is activated by the perception of a situated listener in a concrete space.

The latest formulation of the idea of the network of behaviour and parametric spatialisation can be found in my recent piece for symphonic orchestra *Parallax* (2019–20).⁸ The whole piece is a continuous development of different non-resolving processes, an ambiguous sound mass, which is the product of different networks and parametric organisations. As an example, I will focus on a passage towards the end of the piece—bars 132 to 213. This passage is the sonification of the paths of reflection of an imagined sound moving between six points in space using an acoustic raytracing algorithm. These points are localised among the instruments of the orchestra. The orchestra is divided up asymmetrically into three groups. The disposition is based on the Donaueschingen Baar-Sporthalle (figure 9.4). The first group is situated in a gallery above the audience to its left side. The second group is on the stage, subdivided into three subgroups. The third group is behind the audience. The points are distributed in space and time in the following connected trajectories: (1) from group 1 to group 2 right, (2) from group 2 right to group 2 left, (3) from group 2 left to group 2 centre, (4) from group 2 centre to group 3, (5) from group 3 to group 2 left, and (6) from group 2 left to group 1 (figure 9.5 shows trajectories in time; figure 9.6 shows trajectories in space). There are twenty paths of reflections connecting the start and end points of each of the six trajectories. Figure 9.7 shows the paths in the first trajectory between a point in group 1 and a point in group 2 right.⁹ A path is characterised by its number of reflections (zero to three) and its total duration. The number of reflections of the generated paths is mapped to instrumentation and dynamics. Since each of the twenty paths connecting two points has a different duration, the sum of these paths creates a unique rhythmic pattern. These durations typically last a number of milliseconds. In order to use them musically, I scaled them by a factor of 420 to map them to processes at the macrolevel and by 15, 20, and 30 for the microlevel (figure 9.8 shows mapping to rhythm, instrumentation, and dynamic of the first array of paths).

8 *Parallax* (2019–2020) for symphonic orchestra, commissioned by Südwestrundfunk for the Donaueschinger Musiktage 2020.

9 Calculations of the reflections in a space with the dimensions of the Donaueschinger Baar-Sporthalle and the map of the reflections are calculated with the tool Amray. See <https://amcoustics.com/tools/amray>.

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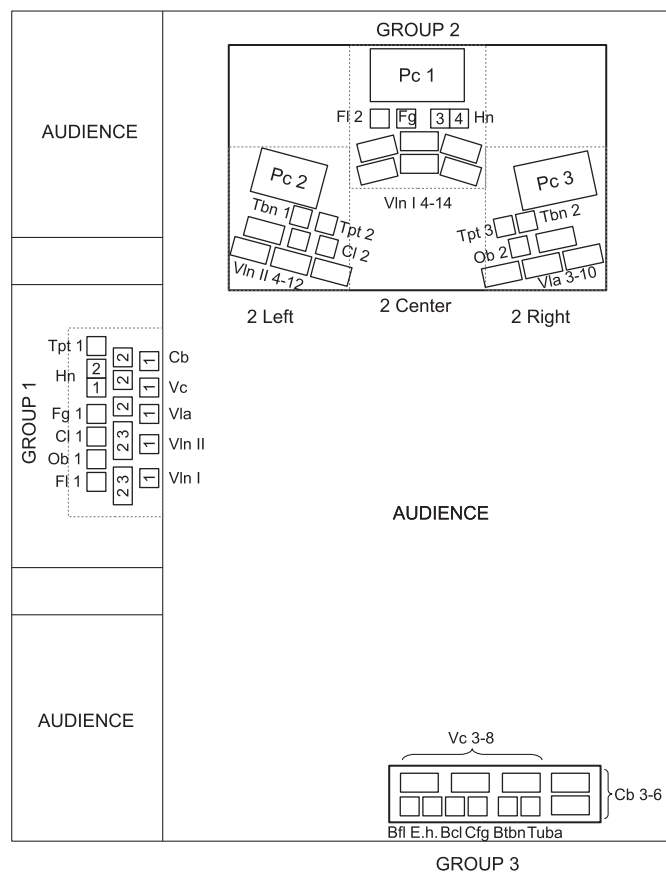


Figure 9.4.

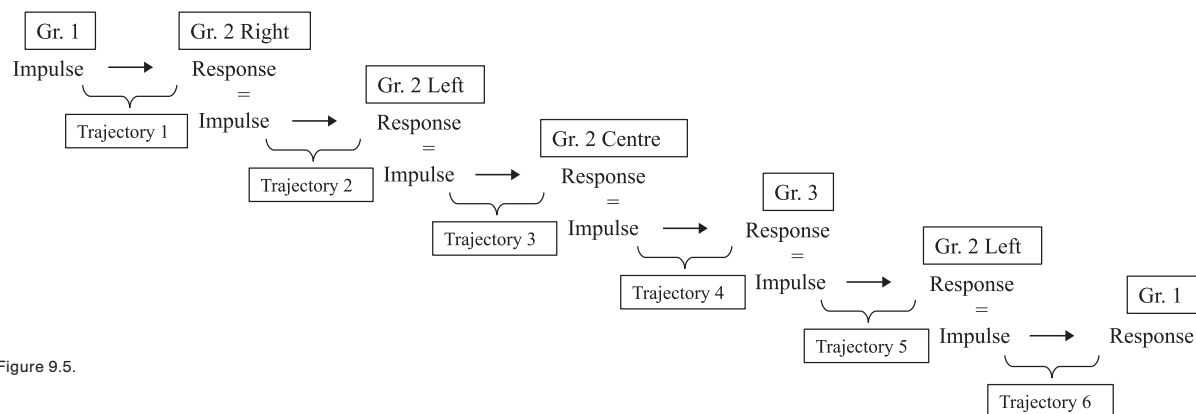


Figure 9.5.

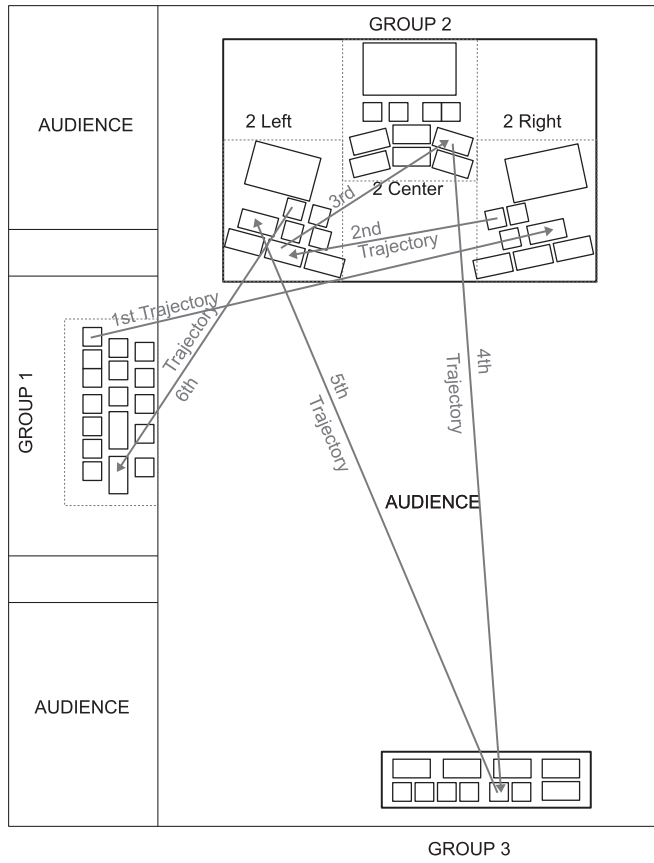


Figure 9.6.

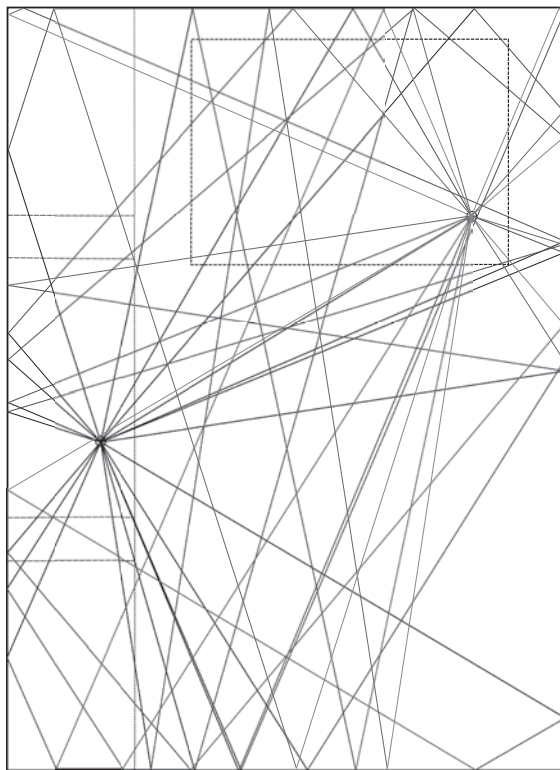


Figure 9.7.

Figure 9.6. *Parallax*, trajectories between the different groups in the performance space.

Figure 9.7. *Parallax*, paths in the first trajectory between a point in group 1 and a point in group 2 right.

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Impulse

Group 1

Oboe 2

C-Trumpet 3
Trombon 2

Group 2
right

Percussion 3

Viola
3-10

139

G1

Ob. 2

C Tpt 3
Tbn 2

G2R

Perc. 3

Via
3-10

Direct
(0 Reflection)

P 2
(1 Reflection)

P 3
(1 Reflection)

P 4
(1 Reflection)

P 5
(1 Reflection) (2 Reflection)

P 6

ff

f

f

f

mf

mf

146

G1

Ob. 2

C Tpt 3
Tbn 2

G2R

Perc. 3

Via
3-10

P 7
(2 Reflection)

P 8
(3 Reflection)

P 9
(1 Reflection)

mf

mp

mf

153

G1

Ob. 2

C Tpt 3
Tbn 2

G2R

Perc. 3

Via
3-10

P 10
(2 Reflection)

P 11
(2 Reflection)

P 12
(3 Reflection)

P 13
(2 Reflection)

P 14
(2 Reflection)

mp

mf

p

mf

mf

Figure 9.8.

Figure 9.8. Mapping of trajectory 1, *Parallax*, from group 1 to group 2 right.

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The passage can be described as follows: An impulse emitted in group 1 creates differently delayed responses in a point in group 2 right. These responses correspond to the rhythmic pattern, instrumentation, and dynamic level generated by the mapping of the paths. The first response in group 2 right occurs at the same time as the impulse of the second trajectory and generates responses in group 2 left. The process is repeated throughout the six trajectories (figure 9.5). While one array of paths is still sounding, another array starts, which results in a simultaneity and the interrelation of different spatial activities. In addition, within each response, “inner reflections”—a sort of feedback inside each group—can take place. In doing so, a chain of reactions and feedbacks is produced. Furthermore, each orchestral group uses a different aggregate of frequencies derived from the room modes¹⁰ of the space that each group occupies (figure 9.9). The aggregates are presented in the course of the process in different degrees of distortion, oscillation, and density (figure 9.10).

Figure 9.6 consists of four musical staves arranged in a 2x2 grid. Each staff has a treble clef on top and a bass clef on the bottom. The top-left staff is labeled 'Group 1' and contains a chord of six notes: G4, A4, B4, C5, D5, and E5. The top-right staff is labeled 'Subgroups 2 right, centre and left' and contains a chord of six notes: G4, A4, B4, C5, D5, and E5. The bottom-left staff is labeled 'Group 2' and contains a chord of six notes: G4, A4, B4, C5, D5, and E5. The bottom-right staff is labeled 'Group 3' and contains a chord of six notes: G4, A4, B4, C5, D5, and E5.

Figure 9.6.

10 The different room modes for this piece have been calculated with the Amcoustics tool Amroc. See <https://amcoustics.com/tools/amroc>.

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Parallax

(♩ = ♪) = 64

132

Fl. 1

Ob. 1

Bs. Cl. 1

Bsn. 1

Hn. 1-2

G1

C Tpt. 1

Vln. I

Vln. II

Vla.

Vc.

Perc. 2

G2L

Vln. II 4-5

Vln. II 6-7

Vln. II 8-10

Vln. II 11-12

Perc. 1

G2C

Vln. I 3-6

Vln. I 7-10

Pc. 3

G2R

Vla. 3-6

Vla. 7-8

overblow

overbl

bisb

Filz

Filz (ohne Dämpfer)

divisi

1-2

mf

f

3-4 (I)

5-6 (II)

7-8 (III)

9-10 (IV)

Figure 9.10.

Figure 9.10. *Parallax* score, pp. 19–21.

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Parallax

21

145

Fl. 1

Ob. 1

B. Cl. 1

Bsn. 1

Hn. 1-2

Cl. G

Vln. I

Vln. II

Vla.

Vc.

D.B.

B. Cl. 2

C. Tpt. 2

Tbn. 1

Perc. 2

Vln. II 4-6

Vln. II 7-9

Vln. II 10-12

Fl. 2

Bsn. 2

Hn. 3-4

Perc. 1

Vln. I 4-5

Vln. I 6-7

Vln. I 8-9

Vln. I 10-11

Vln. I 12-13

Ob. 2

C. Tpt. 3

Tbn. 2

Perc. 3

Vla. 3-4

Vla. 5-6

Vla. 7-8

The passage is the result of the encounters and intra-actions of all these different layers of activities—reflection, pathway, and feedback patterns, sound aggregates, instrumentation, and distortion—that develop in space in a continuous movement and process. The result of these encounters is consciously ambiguous, being open to interpretation in the listening.¹¹

A new situation emerges in the described practice: a musical event that is not the reflection or material realisation of a composer's idea, but rather the intra-action between the composer and the characteristics and potentialities of a concrete material. In the case studies, material and form are not prior to the work; rather, they emerge in the composition process. In *MTRAK*, they are the result of a chain of non-linear systems consisting of SEGMOD, feedback, and granular synthesis. In the case of *Parallax*, material and piece are the result of a network of relations localised in space. In both cases, the outcome is the continuous transformation of a material that is being formed but is at the same time transforming subsequent developments. This new situation proposes a different relation between composer and material in which both share agency; thus, it criticises the binary hierarchical relation of subject and object. I regard it as fundamental to reconsider the category of composer along these lines. A different subject emerges when the composer searches for the potentialities of sound material and reinforces their emergence in the musical work.

RETHINKING THE COMPOSER: A NOMADIC SUBJECT

In the practice described in the case studies, neither composer nor material are prior to the piece. Composition starts in a *tabula rasa* state, similar to what the philosopher Christoph Menke defined as “ästhetischer Nullzustand” (an aesthetic zero state) (2013, 82, my translation). That does not mean that there is nothing before the compositional process, or that it starts *ex nihilo*. It rather refers to a conceptual shift, a different initial approach in practice and in the understanding of material and composer. In this *tabula rasa* state, material is not a passive object waiting for the action of the composer; rather, it appears in the process of composition, in its development and transformation, while at the same time material sets the conditions for its own development. In *MTRAK*, composition is not the development of a raw seed material; instead, the material emerges from the set of possible combinations that system and composer explore. By means of its own structure, the emergent material influences its subsequent development and transformation in the piece. *Parallax* is the result of researching a material that emerges from a set of conditions established by the network of behaviours localised in space. Systems, tools,

¹¹ At the time of writing this chapter, *Parallax* was programmed to be premiered in October 2020 at the Donaueschinger Musiktage festival. Before the chapter's finalisation during the 2020 Covid-19 crisis, the premiere of *Parallax* was postponed to 2022. Instead, a miniature for chamber orchestra, *displaced* (2020), was planned to be premiered in 2020 in which I used the strategy of networks of behaviours explained in this chapter. With the second wave of the Covid-19 crisis, the festival and the performance of *displaced* were sadly cancelled. A recording of the piece was still broadcast on SWR2 in October 2020 and can be heard in the online repository for this book (MF9.1). For further details of the online repository, see p. 355.

instrumentation, spatialisation, and parameters set up conditions for the material to emerge and facilitate its agency.

On the other hand, a composer becomes subject by intra-acting with an object, the piece, which is not yet extant, but in the process of formation. In this “zero state,” the composer is not a fully all-knowing master with total control over the sound matter. This refusal of total control does not mean a lack of expertise or a renouncing of the composer’s agency, but rather an open mind-set embracing experimentation. The composer in this critical practice does not mould sound matter to explain the world to a passive listener. She rather uncovers in the practice of composition a new entity, the piece, by intra-acting with material, and by doing so she regains her agency. Piece and material, but also the composer, are in a continuous process of *becoming*. In this sense, we can relate the composer as subject with the *feminist nomadic figuration* described by Rosi Braidotti in *Nomadic Subjects: Embodiment and Sexual Difference in Contemporary Feminist Theory* (1994). Braidotti describes *figuration* as a method of thinking, as a way to conceptualise something that is in fluctuation and in movement. It is opposed to the principle of identity in which what is described is identical to the concept that describes it. It is opposed to generalisation and is a means of approaching difference.

The quest for multiple connections—or conjunctions—can also be rendered methodologically in terms of Donna Haraway’s *figurations* (1991). The term refers to ways of expressing feminist forms of knowledge that are not caught in a mimetic relationship to dominant scientific discourse. The “nomadic” style is the best suited to the quest for feminist figurations, in the sense of adequate representations of female experience as that which cannot easily be fitted within the parameters of phallogocentric language. (Braidotti 1994, 75–76)

A figuration is a tool that attempts to grasp what difference, “the other,” the female, the queer, the non-white are, what is left out by the category of the male and conceptual generalisation. The nomadic figuration is in continuous formulation herself. She does not impose her mimetic reflection onto the world but rather explores the world in her nomadic *dérive* and in the fluctuations of the world itself. By doing so, the nomadic figuration creates a knowledge of herself and of the concrete. In the same way, the composer proposed in my compositional practice explores concreteness and difference in the material and exercises her own difference and agency. This figuration-composer does not exercise her agency by displaying her authority nor by shaping the sound material into an “expression of the self”—which would be a form of reflection. Rather, she is shaped by her encounter with the material and by the concrete knowledge unveiled in the compositional practice. In her practice, this composer explores the possibility of a subject that does not need to comply with generalisation and with control mechanisms but rather finds in her nomadic movement a way of claiming and making perceptible her difference.

EXPERIENCE: OPENNESS AND MULTIPLICITY.
NEW KNOWLEDGE

A critical practice oriented towards openness in the compositional process suggests a different relationship between material and composer while reformulating the composer as a feminist subject. In the same way, such critical practice can pose a different relationship between a listener and a musical work, by allowing openness in its experience and understanding. Such openness poses a critique of the exclusivity of knowledge based on language and permits the generation of a form of knowledge specific to art.

Still, what is the open experience that a musical practice can offer? The openness in the experience of music can be understood in at least three non-conflicting ways: (1) The result of a musical experiment is not known in advance and it emerges in the process. (2) The musical experiment provides a different result in each iteration—as in the aleatory experimental music of the 1960s. (3) Openness depends on each listener's own subjective interpretation, as in Umberto Eco's semiotic understanding of the artwork (1989). A multiplicity of understandings is the result of different readings by listeners.

I would like to propose a fourth possibility of openness, which does not reject the previous ones: a multiplicity of experiences inherent to the result of the experiment rather than derived exclusively from the divergent semantic interpretations of each listener. In my practice, this openness is due to the relationships and family resemblances that the materials and the composer create. The experience of the piece, its knowledge, is the presentation of an ever-changing network of materials and their behaviours. This network of relations remains open in the contingency of its different appearances but still retains coherence by means of these very same relations. An openness inherent to the work goes beyond semiotic openness. In Eco's *opera aperta*, openness ultimately relies on the listener, presupposing that the work of art is an object projected by the listener's expectations or a symbol for her to interpret. That does not mean that any form of semiotic interpretation is excluded in my practice. Still, the work, due to its multiple nature, resists being reduced to be merely a carrier of meaning and rejects the status of a passive object. Therefore, the work forces the listener to actively encounter it, to intra-act with it, and to follow its continuous meandering. The work is ambiguous and inherently open, its understanding is activated in listening by the encounter with the listener. By doing so, the compositional practice again questions the hierarchical binary subject-object relation, now from the perspective of the listener and the piece, and subverts the consumer-commodity relation.

Parallax is a compositional attempt to subvert expectations and generalisations. The piece neither presents a narrative teleological form upon which the listener can rely in order to follow it nor displays a static situation in which one can be immersed in calm contemplation. On the contrary, the musical work asks the listener to encounter it by presenting different deliberately ambiguous manifestations of a reduced network in continuous movement through space and in its unfolding flux through time.

In my practice, space plays an important role by creating a multiplicity of experiences. Parameters and networks of relations have a spatial dimension and materials are the results of combinations of spatial processes instead of merely being distributed in space. This implies a relational conception of space. Although I use geometrical space as a tool to represent reality, and for the construction of models and systems, I understand space as a relativistic dynamic system of interactions between objects, structures, social relations, and actions (Löw 2016). Therefore, material and space itself emerge in the diffractive encounter between the network of relations, listeners, performers, and the performance space.

It can be argued that pieces that use localisation of sound sources and even any piece played in a concrete space are differently perceived depending on one's spatial position. However, this is not always compositionally explored. Pieces that make use of ambisonics—and also instrumental works that create a specific area or “sweet spot” in which an ideal sound image can be experienced equally by every member of the audience—do not favour a multiplicity of experiences. On the other hand, there are pieces that do offer multiple experiences but do not promote multiple understandings. These musical works display teleological forms in which ambiguity of understanding is not taken into account. Spatialisation in these pieces is always used to communicate a single unequivocal meaning and is understood as the imposition of a spatial position onto an otherwise non-spatial sound object. The listener will have different acoustic perceptions depending on her position, even different semantic interpretations of the piece. Still, the piece offers one possible understanding, the one intended by the composer. This is not problematic in itself but it is contrary to the aim of my compositional practice.¹²

MTRAK and *Parallax* promote different understandings of the relations and transformations of the material depending on the listener's position.¹³ In the online repository for this book, there are three recordings created with a spatial model programmed in SuperCollider that render the piece *MTRAK* in three different listening positions.¹⁴ In these simulations, it is apparent how the different appearances of material in continuous transformation uncovers the piece's intrinsic openness and how the use of space could contribute to enhance a multiplicity of understandings of the musical work.¹⁵

12 There are many well-known pieces that generate different experiences for the listener, but whose aim is not to create ambiguity, for example, Isabel Mundry's *Penelopes Atem* (2003) for orchestra, Beat Furrer's *FAMA* (2005), or Mark André's . . . *auf III* . . . (2007) for orchestra and electronics.

13 Listeners to *Parallax* are advised not to move. Movements of both sound and receptor annihilate the perception of movement.

14 Three binaural recordings that reproduce a quadrasonic version of *MTRAK* in three different listening positions can be heard in the online repository for this book (MF9.2, MF9.3, MF9.4).

15 If we compare the first forty seconds of the beginning of *MTRAK* in the three listening positions we will clearly hear the different understandings that spatialisation can provide. In the first listening position—the listener at the front in the middle—the appearance of a third voice is perceived as a rhythmical shifting of the first two. However, the second position—the listener towards the back left—shows the third layer clearly as independent and in rhythmic contrast with the other two. In the third position this layer is understood as a stronger and different rhythmic shift than in the one from the first listening position, while a high pitch results from the sum of the low frequencies.

The idea of openness in understanding and the role of space in musical listening lead to questions about the epistemology of aesthetic experience and artistic practice. It can be argued that art displays a specific form of knowledge different from language-based knowledge (Borgdorff 2012; Holert 2020). This form of knowledge is more experiential and embodied, and cannot be grasped by language, which deals with generalisation rather than with difference and concreteness. Language reduces the particular to general statements, and in doing so it segregates and hides particular realities, that is, that which does not fit the principle of identity. Nonetheless, artistic knowledge does not disregard or pretend to substitute the knowledge produced by language. Language represents a valuable tool to organise and create systems and in its generalisation it may unfold an artistically productive field of openness. This aspect is explored in poetry and compositional practice dealing with language as material. Still, artistic knowledge proposes an alternative to language-based knowledge by showing experiences that escape discursive enclosure and objectivisation. Far from being a delusional belief in the ideology of “sound music”—as would be claimed by some postmodern advocates of conceptual and semantic referentiality—this approach is a conscious critical practice, which focuses on the realm of sound and generates another kind of knowledge different from the knowledge of (using Jacques Derrida’s terminology) *phallogocentric language*, a knowledge of what is left over by language.

OPENNESS AS CRITIQUE

Achieving openness in compositional practice is a difficult task for the composer, also implying an element of self-critique. A practice that fosters openness, forces the composer to go beyond herself and to share her agency with the material. A critique and a detachment of learned clichés are necessary in order to allow the emergence of material in its transformations. However, self-critique is an ongoing and challenging goal—never entirely achieved—of detaching oneself not only from hierarchical thinking, generalisations, and power relations, but also from expectations of what compositional practice is supposed to be. Different strategies can aid in pursuing this goal. As we saw previously, these strategies include different approaches and conceptualisations oriented towards material and composer and the use of different systems: a network of different layers of spatial activities—in *Parallax*—or the use of non-linear sound synthesis systems in *MTRAK*. The construction of systems is an important part of my compositional practice. They are not a way to achieve a pretended “scientific” objectivity, nor a means to avoid creative decisions—the choice of the system is a creative decision itself. Systems are rather a way to overcome myself, to lose unconsciously assumed stereotypes as well as to allow the agency of the material to unfold, and by doing so, to co-create the conditions for the piece to emerge.

Furthermore, openness implies a risk of failure: a risk is taken when the outcome of the compositional practice is unknown. This risk of failure is not related to its public performance, but to the fragility of the artistic experiment

on the basis of its own premises. The success of a compositional practice is not the confirmation of an a priori idea—reflection of a theory—but rather the existence of the experiment under its own conditions. The success of Lucier's *Bird and Person Dying* does not rely on the empirical demonstration of the heterodyning phenomenon but on the aesthetic experience produced in the encounter between recording, feedback, performance space, and the actions and movements of the composer-performer. It relies not only on its own existence but also on the fragility of its existence, on the possibility that it may not “work.” As Menke (2013) points out, the fragility of art, this risk of failure of its own existence, is what constitutes the experimentality and openness of art.

In this sense, due to its experimental character and its precarious existence and by taking risks, compositional practice affirms its position in the world. It criticises society by proving its own existence and by displaying an alternative form of knowledge and practice. A compositional practice oriented towards openness exercises a different relation—one of intra-action—between composer and material and poses a concrete knowledge based on experience (*Erfahrung*) different from the one of language. In this sense, it criticises social assumptions, hierarchies and power relations, one's knowledge, and the power structures inscribed into it. *Parallax* and *MTRAK* offer a multiplicity of concrete experiences, meanings, and understandings. Their ambiguity hinders their categorisation and prevents them from being turned into commodities. They pose a critique of the myths of composer and composition. The critique inherent to my practice is not a didactic one; however, it does not show on a semantic level what is “wrong” with composition, but rather displays a possible alternative in practice. Far from being a moralising rebuke, this critique poses a “withdrawal of art to conform to the more violent violence of a society in which the art necessarily exists and to which it therefore responds” as described by Lydia Goehr ([2008] 2015, 36). This withdrawal of art is also its refusal to be complicit, which can also be a silent refusal to communicate, a withdrawal from structures of meaning, and it is therefore fragile. The compositional practice refuses to capitulate under the social and formal powers of administration and criticises the violence of social institutions and ideologies such as language, and generalisation imposed onto difference.

By proposing a relation of open encounter between material, composer, and listener, musical practice criticises hierarchical relations of subject and object, and the relations of exploitation by humans of their surroundings and of each other. In addition, it poses a new form of knowledge, a multifaceted event that is open to be experienced and understood by the listener, not necessarily in a semantic way but as an aesthetic experience. This more subtle critique immanent to the practice of composition and outside language locates itself in a fragile, subtle, almost silent place because it makes visible the invisible. Art shows what escapes language, what is repressed and hidden. It creates a sensory experience of what is ungraspable (invisible) by symbolisation, of what is different. Art becomes critical by aesthetically displacing its own borders and thus by contributing to “a new landscape of the visible, the sayable and the doable” (Rancière 2010, 149).

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