Dramatized-Performative Narrative: a novel method for composing electroacoustic music

Dimitrios Savva

Thesis submitted in fulfilment of the degree of Doctor of Philosophy in Music

Department of Music
University of Sheffield

March 2021

Abstract

This research introduces the term *dramatized-performative narrative* within the field of electroacoustic composition. It takes the form of an original portfolio of electroacoustic compositions, accompanied by a written text that explains: (1) the notion of dramatized-performative narrative, (2) a central method, based on this notion, that is employed throughout an accompanying portfolio of works, and (3) a brief discussion and analysis for each work in the portfolio.

The term dramatized-performative narrative is proposed to specify a bespoke type of narrative that derives from, and directs, the performative activities of others. Based on this idea, a compositional method for producing works that incorporate dramatized-performative narrative is proposed. The method specifically explores, and experiments with, various ways of: (1) predetermining dramatized performances through the use of a performance-score, (2) sonically capturing the executions of these performances with various recording techniques, and (3) using these recordings as the central material for composing and structuring electroacoustic works of music. The works that have been composed using this method are: four 8-channel compositions: *Moments of Liberty, I - IV*, and the three stereo compositions: *Echo, the nymph of reflection* and *Once there was a forest*, *I* and *II*. Taken as a whole, the compositions highlight the compositional, musical and narrative potential of this novel method.

The accompanying text begins with a brief introduction to the central writings on narrative and referential sound in electroacoustic music. It goes on to define the term dramatized-performative narrative in electroacoustic music, while setting out a series of research aims and objectives. Finally, it discusses the method itself and its relation to dramatized-performative narrative, and provides a brief analysis of each work in the accompanying portfolio.

Table of Contents

Introduction

Research on narrative in electroacoustic music is two-fold. On the one hand, it involves text-based research, in which bespoke terms and concepts are proposed, largely for the purpose of analysis. On the other hand, it involves the practical composition of new works that incorporate narrative. To date, this bifurcation of research into narrative in electroacoustic music has provided many valuable theoretical and compositional outputs. While theorists benefit from having a series of composed works to study, composers of narrative electroacoustic music have relatively few documented methods upon which to base their practice.

This research proposes such a method. It does so in two ways; firstly, through this written thesis, in which a bespoke method is proposed and explained, and, secondly, through a composed portfolio of original electroacoustic works, in which the core method is put into practice. Although the research offers just one method for the creation of narrative in electroacoustic music, it is hoped that the multiple vantage points offered on this particular method will demonstrate its flexibility and durability. More broadly, it is hoped that the link between theory and practice may offer a blueprint for those wishing to propose additional methods for composing narrative in electroacoustic music.

The written thesis is divided into two main parts. The first part starts by addressing a selection of existing writings and musical works associated with notions of narrative (1.1. Narrative: writings and musical works). It demonstrates how existing texts have provided valuable terms and concepts (albeit often covering similar ground) that aid the discussion and analysis of existing works. Few of those writings provide anything akin to a proposed method for the creation of new works that incorporate narrative. A series of research questions (1.2. Research Questions) consider how one might approach the creation of a narrative in electroacoustic music, leading to a broad statement on how these questions were subsequently answered (1.3. Methods and Concepts). The second part of this thesis discusses each of the compositions in the associated portfolio. The six sections in this part draw attention to how the core method of dramatized-performative narrative was explored, providing a brief analysis of the works. The associated portfolio of works includes seven original pieces: *Moments of Liberty I - IV*; *Echo, the nymph of reflection*; *Once there was a forest I and II*.

Part 1

1.1. Narrative: writings and musical works

This section briefly discusses some central writing and musical works related to this research of narrative in electroacoustic music. In doing so, it forms the theoretical background of dramatized-performative narrative by highlighting key terms used to describe narrative within works, and draws attention to the lack of any bespoke methods that may be used to incorporate narrative into works of electroacoustic music.

One of the most straightforward uses of the term *narrative* in electroacoustic music comes from Curtis Roads, who proposes the term *sonic-narrative* (2015, p.318). Roads states that a composition is a 'function of time', going on to explain that 'it is born out of nothing', it grows, evolves and develops until the moment it finally expires. This narrative-thread - from the shorter event of a single sound to the larger events of phrases, parts and wholes - is what Roads regards as sonic narrative. Through a metaphorical perspective, Roads sees the sounds that make such sonic narratives as characters that in various ways: (1) can enter the play - the musical work, (2) act within it, either through self-change or interaction with other sounds, (3) complete their cycle of life and exit the play. Based on this view, sound can be seen as a happening that causes events through its appearance in a work, its progression, interaction and expiration. Narrative is the unfoldment of these events in time and space.

Roads sees any type of music as narrative, since all sound-events, recognisable or not, are equal narrative units. A gesture that suddenly interrupts a harmonic texture, for example, is just as narrative as the sound of footsteps following the opening of a door. With a similarly broad perspective, Meelberg adapts Bal's narrative ideas (Meelberg 2006, p.39), claiming that music is the representation of a temporal development of musical-events that succeed each other in time and, consequently, narrative (Meelberg 2006). There are many others who disagree with these views (Kefalenos, 2004; Meelberg, 2006; Nattiez, 1990; Ryan, 2014; Wolf, 2005), and the on-going debate about whether all music is narrative will surely continue. Thankfully, one does not need to resolve this debate to discuss electroacoustic music, which variously includes both referential and non-referential sounds. This significantly alters the debate on narrative in this particular musical form, as is clear from the various theorists and composers who have addressed this topic; these are briefly surveyed below.

Simon Emmerson (1986), in analogy to discourse in language, addresses the duality (between referential and non-referential sounds) by proposing the terms mimetic and aural discourse. Mimetic-discourse stands for the deliberate use of sounds that mimic nature and human behaviour (referential-sound) in the compositional-process. Aural-discourse stands for the deliberate use of non-referential sounds, specifically for their aural-sonorous qualities, attentively avoiding any mimetic reference.

John Young (1996), from a listening perspective, sees the compositional effects of this duality, addressing it as a continuum made from the opposite poles of reality and abstraction. Reality stands for a realistic-context perceived from a composition that results from the recognition of: (1) the objects (the sounding bodies) this context is made from, (2) the physical activity that causes the excitation of these objects (cause) and (3) the physical-context of these objects. Abstraction stands for a context perceived as to be made from sounds abstracted from their source-cause-context and it is, therefore, not recognisable. Young, finally defines continuum as the constant flux of listening-perceptive judgments regarding the sound-material that cause perceptive-movement from one pole to the other.

Trevor Wishart (1996), in relevance to Young's continuum, proposes the notion of aural-landscape to refer to the sound-image formed from the experience of the sounds that make a composition and the imagination of these sounds' sources and spaces. A duality is created between: (1) the realistic aural-landscape and the perception of real-object/real-spaces, and (2) an imaginary aural-landscape with different degrees of abstraction that is defined by the perception of unreal objects/unreal spaces.

Recently, James Andean has proposed the notion of duality as a musical and a narrative layer (Andean 2010). The musical layer is where musical-objects progress and develop, forming phrases and establishing a musical-flow. The narrative layer is the stream of images and sources evoked from this musical-flow. These include evocations established not only from the material, but also from the imagination of the listener. In a later text (2016), Andean unifies these two layers and expands them into narrative-modes. In reference to Meelberg's idea that the events of a musical-narrative are perceived through the sonic-changes initiated from various aural-cues (2006), Andean proposes various narrative modes with which acousmatic music is perceived: material, formal, structural, mimetic, embodied, parametric, spatial, studio, textural and extra-musical narrative modes. These modes can be activated in the listening process in combination or alternated in regard to the specific listening experience of an individual work.

There are other significant writings in which narrative features (Amelidis, 2016; Batchelor, 2015; Bruson, 2012; Camci, 2016; Giannoukakis, 2016; Giomi & Ligabue, 1998; Hoffman, 2013; Norman, 1996 and Picheiro, 2016). However, there are very few written works that discuss methods or strategies on how to deal with narrative in the compositional process. *Red Bird* by Trevor Wishart is an exception. Wishart (2012) provided us with a very comprehensive description of his method to compose the particular work. Although the written work is inspirational and influential, it describes a personal approach that is not designed to be adapted by others. Picheiro (2016) also develops her own unique approach in incorporating narrative in her practice through Foley art and staging techniques. However, her concentration on theorization, that introduces useful concepts and terms, leaves little space for sharing the practical processes and steps of her method. Other selected compositions that deal with narrative, like John Young's *Lamentations* and *Ricordiamo Forli*, Luc Ferrari's *Presque Rien N°1 Ou Le Lever Du Jour Au Bord La Mer*, Gilles Gobeil's *Ombres, espaces, silences…*, Åke Parmerud's *Dreaming in Darkness* and *Grain of Voices*, provide little in regard to the methods followed for their realisation. Clearly, it would seem that, while the general topic of narrative has been discussed and terms are available to aid such a discussion, there are almost no existing methods available for those wishing to incorporate narrative into works. This fact led to the development of a series of research questions, as discussed in the following section.

1.2. Research questions

A lack of documented compositional methods for the creation of narrative in electroacoustic music helped to establish two central research questions:

1. What might a method of incorporating narrative in electroacoustic music look like?

2. Might a single method be used repeatedly and, if so, might it be flexible and durable enough to produce distinctive and different kinds of narrative?

These broad research questions may be supplemented by a series of secondary questions:

1. Are there any specific strategies that one might use to predetermine or prepare sound-material intended to be used for incorporating narrative into works of electroacoustic music?

2. How might those materials be recorded and edited in ways that presuppose a narrative?

3. How might recorded materials be structured in ways that presuppose a narrative, and does the structuring process draw from those recordings or must it be designed separately?

4. Is a single method for designing and structuring materials for use in a work that incorporates narrative sufficient, or must it be supplemented by additional methods?

The following section introduces the method that was designed to provide answers to these questions, and the answers themselves are provided in Part 2 of the thesis.

1.3. Methods and Concepts

This section presents the overview of the method designed to address the aforementioned research questions. It firstly introduces a series of key terms that enable us to differentiate between five kinds of narrative; these are crucial for understanding the method itself. The terms proposed are: musical, intra-musical, inter-musical, performative and dramatized-performative narrative.

<u>Musical narrative</u>

Musical narrative is seen in this research as a possible perceptive dimension, where music can be viewed as the representation of a series of musical events. This stance, which is based on Abbot's narrative definition (2008, p.13), may be shortened as follows: *the representation of a series of musical events.*

Representation, as agreed by many narratologists (Abbot, 2008, p.13; Genette, 1982, quoted in Ryan, 2007, p.23; Prince, 2001, quoted in Rudrum, 2005, p.195) is a central function of narrative. For Abbot specifically, representation stands for the idea that a story, 'pre-existing its vehicle of conveyance' (p.15), is not conveyed directly, but rather through a narrative discourse. The discourse defines how the story is told and how it is rendered in a given medium. This suggests that what we experience is not the presentation of the events of the story, but the representation of these events through the narrative discourse. In this research, we use the word representation to specify that the experienced musical-events are representations of something 'pre-existing'. What preexists the musical-events per se are the musical and narrative ideas that formed the concept of the compositions and, most importantly, the compositional processes that defined the way the musical-events have been sequenced, rendered, conveyed and represented in a sonic-medium to make a musical-narrative.

Further to this, musical narrative in electroacoustic music is considered possible to be the representation of any musical event, regardless of whether these are referential or not. This means, remembering the example above, that a musical-event of a gesture interrupting a harmonic texture establishes a musical narrative, as does the sound of footsteps following the sound of a door opening. These musical-events, made from referential and non-referential sounds, indicate two levels of perceiving musical narratives. The first level is a constantly present sonorous-level and the second is its interconnected referential-level that appears when referential sounds are perceived. To specify and differentiate these two levels of perceiving musical narrative, the terms inter- and intra-musical narrative are introduced.

Intra-musical narrative

Intra-musical narrative refers to a series of events as perceived through their sonorous qualities. Take, for example, the introduction of *Moments of Liberty I*: a harmonic texture appears quietly in a low spectral region forming a discrete circular spatial movement. Gradually it evolves by becoming louder and revealing its higher frequencies and a discrete frequency modulation. This is an intra-musical narrative, a representation of the series of musical events as perceived from the sonic changes described. Thus, the term intra-musical narrative specifically refers to the narrative perceived from within and based upon pure sound. The term mainly applies when describing non-referential sounds, but may be used to describe referential sounds strictly through reference to their sonorous qualities.

The term itself has been adapted from the terms (1) intra-musical meaning (Budd, 1995, quoted in Davis 2011, p.3) - the meaning derived from the internal structural relations, functions and causes between the sonorous elements of a musical work and (2) intra-musical referents (Koelsch, 2011) - the references between the constituent musical units of a sonorous structural network. In this research, these terms have been reconfigured not to indicate the sonorous elements and their structural relations, functions, causes and references per se but rather to specify the narrative these elements form.

In addition to the above, the term intra-musical narrative may also refer to one of two methods for structuring referential sounds. Structuring of this kind, a process of successively placing referential sound in time and space, takes into consideration, primarily, the sounds' sonorous characteristics and, secondarily their source-cause-context signification and causal-relations[1].

For the remainder of this thesis, the term intra-musical will be used to refer to both the perspective-level and structuring approach mentioned above, but is defined as: *the sonorous representation of a series of musical-events*.

---

[1] The same phenomenon, although associated with language rather than narrative, has been addressed by Emmerson (1986) with the terms abstract/abstracted syntax.

<u>Inter-musical narrative</u>

Inter-musical narrative stands for the series of events perceived through their source-cause-context significations (referentiality) and the relations these significations establish. This only happens when referential sounds are used. Take, for example, the introduction of *Moments of Liberty II*: the sounds of footsteps and breathing are heard along with the sounds of opening doors and striking matches. This is an inter-musical narrative, a representation of the series of musical events perceived through their source-cause-context significations. These significations, in reference to the specific example, stand for both the sound-sources that produce sound after being excited with a particular cause (footsteps causing the excitations of ground, a hand gesture that turns the doors handle and causes the opening of the door) and the physical context resulted from this activity (the size of space and its reflecting material, perceived through reverberations caused from the sound of footsteps and the door opening). Further to this, inter-musical narrative could refer to narratives deriving from soundscapes, machines and any other sound that signifies its source-cause and context.

The word inter-musical is adapted from the writings of Wolf, who referred to the inter-musical references in instrumental music as: 'a form of references to individual compositions or in the form of 'system reference'; (references to historical or composers' styles, to individual musical genres or compositional styles)' (Wolf 2017, p.330). In Wolf's terms, inter-musical relationships, formed from the above references, are created when sonorous elements of a work interconnect, sonically, with other listening perceptive levels; the perceptive level is that in which sonorous elements of the work are associated with compositional styles, and musical genres. In this research, the term inter-musical has been significantly reconfigured to signify something quite distinct; the interconnected perceptive level is that which is referential. In this reconfigured sense, sounds are not interconnected with genres and styles but are rather interconnected with their source-cause-context signification. Thus, inter-musical narrative stands for the narrative that derives from the source-cause-context signification of referential sounds. It is defined as: *the source-cause-context representation of a series of musical-events.* This could be a narrative deriving from the significations of the sounds of the above example, in which a man walks, breathes, strikes matches and opens doors. It could also be the narrative of the natural soundscape; a bird that is heard singing, then flying, singing again in a different direction and then receiving some singing response from other birds.

It becomes clear then that inter-musical narrative is established through a shared recognition among listeners of the sounds' source-cause-context significations, like for example the breathing, the door opening, the walking and the bird singing. This further means that these

significations are found within the sounds per se and are not interpreted as mimicking or imagined and imposed by the listener as metaphors or symbolisms. For example, it is possible for the listener to distinguish the resonating sounding-body of the flute imitating bird song and the orchestra metaphorically referring to the sea, from recorded bird song and sea sounds used in an electroacoustic composition. This allows us to distinguish between inter-musical qualities found within the sound and extra-musical qualities that are drawn to the sound but which are outside of the sound itself. Extra-musical narrative alludes to such elements as programme notes and the titles of the compositions.

Sound heard as a physical activity independent from its source-cause and context can be considered to invite intra-musical narrative. Sound heard, and loosely identified by source, cause or context can be considered to invite inter-musical narrative.

Finally, as with intra-musical, inter-musical may also be used to specify a method of structuring sounds. Structuring of this kind takes into consideration, primarily, the sounds' source-cause-context signification and causal-relations, and, secondarily, their sonorous characteristics.

Performative narrative

Performative narrative is a subcategory of inter-musical narrative. Performative narrative stands for the narratives that derive from the performative-activity of people. As a term, performative[2] is inextricably linked with the action of performing: of carrying out, accomplishing and fulfilling an action (Bell, 2005). It was first introduced by J.L. Austin to indicate performative utterances which are actions themselves (Bell), and adapted by those in the field of narratology to indicate performative and evocative action (Berns, 2014). In this research, the term performative is selected, among other relevant notions like mimetic, material and embodied narrative (Andean, 2016), to indicate:

1. performative-actions taken by one or more anthropomorphic performing-agents

2. events that these actions establish

3. performative elements and qualities they both bring along.

---

[2] The term performative is used in this research as it is used in the field of narratology and performing arts and it should not be associated with the term music-performativity that regards the performativity of musical performance and the performativity of its performer. More information regarding music-performativity can be found in the journal Musicology Australia, Volume 36, 2014, entitled Music Performance and Performativity.

In the context of musical-narrative, these performative actions, events and qualities are perceived through the referential (performative-activity) sounds that make a composition. Thus, performative-narrative in the context of musical-narrative is defined as: *the performative-activity representation of a series of musical-events.*

The introduction of *Moments of Liberty II* presents the performative-activity of a human: his breathing, walking, opening doors and striking matches. These series of referential-sound based events are a form of inter-musical narrative. However, since these events result from a performative-activity, the narrative they form can be more specifically labelled as a performative-narrative. As a category of narrative that widely refers to performative-activities, performative narrative includes cultural and social performative activities - parades, demonstrations, strikes and many more (McAuley, 2007) - and predetermined and acted activities. As a consequence, compositions that include cultural and social performative-activity also fall into this category of narrative. In Luc Ferrari's *Presque Rien N°1* we hear the social performative-activity sounds of people passing by and chattering. In Panos Amelidis' *Agoras 1* we hear various cultural-performative activity sound recordings of sellers in a market. *Traveling to India* by Hildegard Westercamp is also a typical example of a composition incorporating various recordings of social and cultural performative-activities from markets, people gathering together and activities in temples.

Dramatized-performative narrative

Dramatized-performative narrative stands for the narratives that derive from and direct the predetermined performative-activity of people. In this context, dramatization, both etymologically and practically, stands for the direct process of making something dramatic - dramatizing - as an adaptation of a story, a novel or a myth into a theatrical presentation or generally referring to the process of presenting/representing something dramatically, in a dramatic way (Collins online dictionary; Merriam Webster online dictionary)[3]. Dramatized-performative narrative in the context of musical narrative is a subcategory of performative-narrative, and is defined as: *the dramatized-performative-activity representation of a series of musical-events.*

The introduction of *Moments of Liberty II* is, once again, an example of this form of narrative. The musical-events are perceived through a performative-activity (a human breathing,

---

[3] The term should not be confused with the term dramaturgy. This particular term is used by Landy (2007) in the context of electroacoustic music to refer to the process of establishing the context of a composition -its dramaturgy- in order to support the communication of the compositional intention and the concept.

walking, opening doors, striking matches) that was predetermined, and thus the narrative is a dramatized-performative one. Along with the derived narrative, dramatized-performative narrative also stands for the narrative directions in the form of a performance-score that define the performance-activity and its execution. In reference to the previous example the performance-score could include all the directions to the performer as to how and where to walk, and when and how to open the doors and strike the matches. Additionally, it can specify the performers' psychological state when executing all these actions.

The five terms presented (figure 1 below) help us to differentiate between the different kinds of narrative and their perceptive levels. Specifically, musical narrative broadly refers to the perceptive stance where music is seen as a representation of musical-events. Within this stance, intra-musical narrative stands for the perception of these events strictly through their sonorous qualities. Inter-musical narrative stands for the perception of referential sounds through their source-cause-context significations. Within inter-musical narrative, performative narrative is introduced to specifically refer to the perception of referential sounds that are produced exclusively from any performative-activity of people (social, cultural and predetermined). Finally, dramatized-performative narrative is introduced as a subset of performative-narrative to specify the perception of the particular kind of performative-activity that is predetermined and directed in advance.

Musical-Narrative	*The representation of a series of musical-events.*
Intra-Musical-Narrative	*The sonorous representation of a series of musical-events.*
Referential-sounds	
Inter-Musical-Narrative	*The source-cause-context representation of a series of musical-events.*
Performative-Narrative	*The performative-activity representation of a series of musical-events.*
Dramatized-Performative-Narrative	*The dramatized-performative-activity representation of a series of musical-events.*

Figure 1: Musical-narrative definitions

For the purposes of this research, the last term is of primary importance, since it presupposes a bespoke method in which narrative ideas may be planned in advance. Rather than simply offering a term describing particular materials within a work, this term may be used to describe a particular method of working. To practically explore this notion, the method has been designed responsively to specifically set and explore the following creative stages:

1. Design performance-scores to predetermine and dramatize a performative-activity and direct its execution by the performer. Performance-score is defined in this research as a set of predetermined or semi-predetermined and partly improvised performance directions that are given to the performer to partly specify what needs to be done during the performance. Adapting Burrows' (2010) definition, the score can have the form of (i) a template that illustrates what will happen in the performance and/or (ii) a series of thoughts, images and ideas that function as an inspirational drive for the performer, indicating only partly what will happen and, thus, creating space for improvisation.

2. Capture sounds from these executions, along with supplementary sound-material, using a range of recording techniques.

3. Use these captured sounds, and the associated sequence of activities or events of which they are a part, in various ways to compose musical works.

By following these three stages, the central research questions may be answered in relation to the following objectives:

1. The extent to which performance-scores and recording-techniques impact the sound-material recorded. This is achieved by examining the following phenomena:

    a. The recognisability of the recorded-sounds produced from the score's execution-performance in relation to its narrative-directions. Recognisability refers to the degree of recognition of the sounds' source-cause-context, causal-relations, narrative-thread[4] and dramatization (psychological state of the performer and dramatic qualities).

    b. The impact the recording-techniques have on this recognisability.

    c. The impact that both recording-techniques and score have on the music-aesthetic qualities of the recorded-materials.

2. The criteria used to select supplementary sounds and extracts from the performance-recordings. This is achieved by examining the factors that define the selective-process in response to the specific compositional needs of a work or a section.

3. To explore various ways of musicalising the selected extracts. Musicalising stands for finding creative ways to efficiently use performance-recordings in the compositional process to make them musical elements that will through a musical-discourse become part of a musical work. This is achieved by experimenting with different ways for the extracts to:

    a. be spatiotemporally, spectromorphologically and causally organised

    b. be edited and spectromorphologically transformed

    c. coexist with additional non-referential sound-material.

---

[4] Narrative-thread stands, as referred to by Nattiez (1990), for the perceptive phenomenon of inferring the causal relation among succeeding events. In the context of this research, this could, for example, refer to the listening of footsteps and then a door opening and infer that a person walked up to the door and opened it. A thread is created or inferred in an attempt to connect these two events in a meaningful way.

4. To assess the musical and narrative impact of these different musicalisation approaches. This is achieved by examining:

   a. musically, changes or the exposition of specific sonorous-musical characteristics caused by musicalisation

   b. narratively, the impact musicalisation can have on the recognisability of the recordings.

5. The extent to which performance-scores inform the structure of the compositions. This is achieved by examining the degree to which the structure established by the recorded performances is maintained after the selected extracts are musicalised into the compositions.

The works in the accompanying portfolio take, as their core method, this idea of dramatized-performative narratives. They explore this in various different ways:

1. *Moments of Liberty I - IV* involved the production of performance-scores by using narratively-based directions to explore various performative-dramatic qualities. These are expressed through the embodied-activity of performers through the sounds produced by their:

   a. bodies

   b. performative-interaction with objects

   c. movement in indoor and outdoor spaces.

   Spatially, performance-scores are set:

   a. to present the performance-activity as if from the centre of the performance-stage

   b. to direct this activity to take place or move in all possible directions and distances surrounding the receptive-point.

   In response to these spatial factors:

   a. multichannel and ambisonic recording techniques were employed to holistically capture performance-stage-space, performance-activity and the movement within space

   b. an 8-channel surround loudspeaker-system (see Appendix) has been used so that these spatial qualities could be further explored in the compositional process.

A binaural recording technique was used on the performers to capture closely the sounds they produced and to capture their surrounding sound-environment from their location. Both performance-scores and sound-recordings were mainly designed prior to commencing the compositional-process[5].

2. *Echo the nymph of reflection* used the same core method, albeit with slight differences. Rather than designing new performance-scores to capture embodied-dramatized-performative based sound-material, existing materials (designed through the use of performance-scores) from a dance-project composition were adapted and recontextualised. This led to an exploration of how a different contextualisation of the material, and thus a different sonic-content encompassing it, can affect musical and narrative qualities.

3. *Once there was a forest I and II* considered yet another approach to the same core method. The method was employed to convert two different versions of a dance and live-electronics performance into two acousmatic fixed-media compositions.

The dance with live-electronics performances were created in collaboration with dancer-choreographer Konstantina Skalionta. During this period, we extensively interacted and experimented with various materials and designed respectively a dance and a music performance-score. Both scores were constantly changing and evolving until they were finalised in two different forms, partly defining the musical and choreographic content of the performances. Rather than partly defining the sound-material used in the finished pieces, this particular approach almost entirely defined the resulting materials. Further to this, the method has been used to capture and record these performances in one take and through simultaneous recording from different spatial locations in the performance-stage; this was carried out in three different ways:

   a. a stereo recording-technique to capture the performance (music and sounds produced by the dancer) from the frontal audience perspective

   b. a binaural recording technique on the dancer for the same reasons as used in *Moments of Liberty*

   c. an internal-recording of the music-performance of every different stem from various processing-units to be re-mixed later.

---

[5] In a few cases, during the compositional process, new ideas were born leading to the design of new performance-scores and new sound-materials that have resulted from the execution of the scores.

The aim of the recording was to preserve the realism of the performance by maintaining the original order of the dance and music performances.

Having established a broad set of concepts, and a central method that springs from those concepts, we are now in a position to discuss the works in more detail. Attention is drawn towards ways in which the central method was differentiated across parts and sections of compositions, and the results that this produced.

Part 2: Works

This part of the thesis discusses, in turn, each of the compositions in the accompanying portfolio, addressing different uses of the core method described above. Since all the works have been composed with combined uses of the method, this discussion selects the most representative for each composition and addresses them in response only to their associated performance-scores and composition parts. For all compositions, the discussion is divided into the following sections:

1. a <u>concept</u> that introduces the compositional ideas behind each work

2. an <u>analysis-overview</u> that specifies what use of the method is addressed

3. a <u>method-analysis</u> that explains how the method was used in relation to the work

4. a <u>conclusion</u> where the central findings are briefly stated.

Each analysis also includes an associated composition structure diagram. This indicates large sections and smaller parts of the composition and specifies to which performance-score (and related sound-material resulting from their execution recording) these parts are associated with[6].

Technical details, program notes, and the associated performance-scores (along with sound examples of their execution), can be found in the appendix.

---

[6] Specifically for the series of *Moments of Liberty* works, numbering of sections and parts is continuous in order to specify that there is continuity among them and that they are all part of one unified work.

2.1 *Moments of Liberty I: Outside and Insight*

Concept

Moments of Liberty presents the journey of a character that seeks to become existentially liberated. *Moments of Liberty I* explores the beginning of this journey, where the character realises his state of containment and commences a journey to liberate himself from this state.

Analysis-Overview

The analysis of the work illustrates the use of the method to establish descriptive-narratives: narratives that are relevantly descriptive of what performative-activity is happening[7]. To do so, it discusses the following processes:

1. performance-scores and their design

2. selection criteria of the extracts from the scores' execution

3. musicalisation of the extracts in the associated parts of the composition (2, 4b, 6 and 7, see diagram 2).
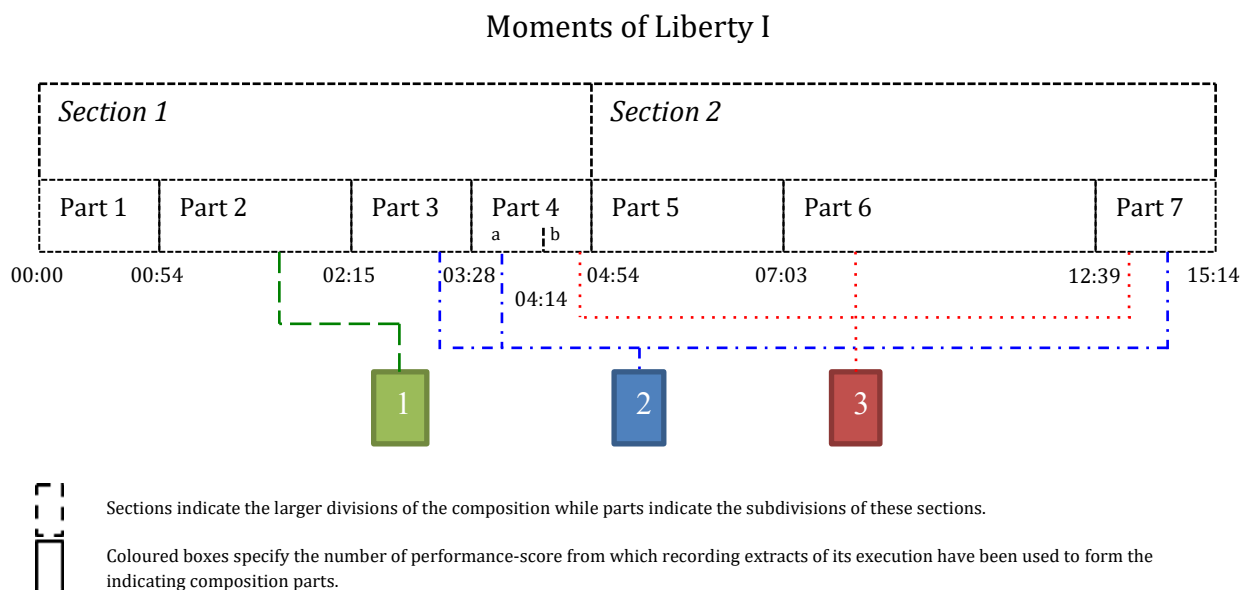

Figure 2: Moments of Liberty I structure diagram

---

[7] Since all the compositions analysed are based only on dramatized-performative narratives and not on any other kind of narrative, the use of the word 'narrative' in the analysis should be taken as an abbreviation that directly refers to dramatized-performative narrative.

<u>Method-Analysis</u>

Performance-scores are largely descriptive. As such, they specify and describe the performative-activity that needs to be executed by the performer, limiting acts of improvisation. For example, performance-score 1 directs the performer to open a door, walk inside the room and exit the room by closing the door. The performer is asked to do this in a calm state of familiarity with the space and in a tense state of feeling uneasy as if experiencing an unknown space. Similarly, performance-score 3 directs the performer to strike a match, light a candle, place the candle inside a lantern, walk down a ladder, enter and explore a basement and return following the reverse path. The performer is asked to do this in a state of agony and in a more normal relaxed state.

The execution of the performance-scores is recorded and extracts of these recordings are selected and musicalised into the composition. Selection and musicalisation are mainly based on the recognisability of source-cause-context, psychological-state and causal relationships connecting different sounds (such as a person walking to a door and then opening it). Inter-musical structuring[8] establishes these relationships through editing. To illustrate this process the following parts of the composition are briefly analysed.

Part 2 (00:54-02:14)

In part 2, the following sound extracts from the recording-execution of performance-score 1 were used: breathing (01:19), walking (01:17), opening and closing doors (01:22, 01:40) crackling floor sounds (01:34) and cloth sound produced by body movement (00:54, 00:59). The inter-musical structure of these sounds aimed to establish recognisable causal-relations among them in order to trigger their association (breathing, walking and door sound along with their spatial context) with the presence of a human that moves and acts in an indoor space. The symbolism of this activity was driven by the concept of containment and the ignorance of the one experiencing it. Composition based on these symbolic and conceptual ideas aimed to establish a place that would evoke reality, everyday life, and actions that could suggest movement (walking) and symbolically: containment (an indoor space), change, repetition and return (door sounds).

---

[8] Inter-musical structuring, as stated in 1.3, stands for the structuring of a series of referential sounds by primarily taking into consideration their referential qualities and more specifically their source-cause-context signification and their causal-relations. It always takes place in combination with intra-musical structuring, its counterpart that stands for the structuring of referential sounds by taking into consideration their sonorous qualities. Thus, when stating that the structuring is inter- or intra-musically centered, one of the two is more prominent.

Part 4b (04:14-04:54), 6-7 (07:03-15:14)

The following sound extracts from the recording-execution of performance-score 3 were used: [part 4b] heavy breathing (04:16), lantern (04:21), walking down (04:37) and up (04:42) a stairway and [part 6, 7] walking (08:04), lantern (09:11), candle burning (09:21), walking and heavily breathing (10:17), looking for match inside a matchbox (10:23), striking a match (10:28) walking (12:50).

Inter-musical structuring of part 4 aimed to create recognisable causal-relations among these sounds and expose psychological-states to trigger the sounds' association with the presence of a human. The space is now reverberant, the psychological-state in agony and tension and movement is now fast and tense. The symbolism of this activity stands for the character's response when realising his state of containment and need for action.

In parts 6 and 7, inter-musical structuring aimed to establish a recognisable causal-relation among the successive sounds and transitions of the performer's psychological state. This attempted to trigger associations of the succeeding sounds with a human presence: that his calm and explorative psychological-state and performative-activity would transform through a gradual climatic transition to one full of tension and agony. The resolution of this climactic process brings back the calm and explorative state of the performer and his activity. The symbolism of these parts refers to the exploration of the character from his state of containment, using the aforementioned objects in an attempt to 'shed light' and understand it.

While the inter-musical structure is at the centre of the descriptive-narrative approach, the intra-musical structure is used in combination (as in most cases) to further enhance the formation of narratives. Two central approaches related to these particular parts are the temporal and spatial articulation. It is clear how, for example, the pace of articulation (sparse-dense) of the extracts and their spatial projections (distant to proximate and localised to surrounding) contribute to the establishment of the narrative dramatic qualities of tension-agony and calmness-resolution.

As seen from the analysis, the narrative ideas discussed have largely defined the composition. However, listeners are only expected to recognise basic narrative cues from these ideas, such as the presence of a human that acts and moves between different psychological-states (dramatization).

<u>Conclusion</u>

The analysis has shown the use of the method to establish a number of descriptive-narratives that:

1. expose source-cause-context significations, a causal-relation and dramatic qualities of the performative-activity produced sounds.

2. incorporate, efficiently and coherently, the performative-activity sounds to create narrative elements.

To achieve this, performance-scores:

1. described what performatively will happen, limiting the space for improvisation

2. formed performative-activities that, due to the nature of sounds they produced are recognisable.

The selection and musicalisation of the extracts from the execution-recordings of the scores, in response to the aforementioned aims, are based on:

1. the recognisability of the source-cause-context signification, causal-relations and dramatic-qualities of the sounds produced from the performative-activity

2. the consideration of the sonorous qualities of the sounds

3. the variant and appropriate use of spatiotemporal and spectromorphological articulations of the material

4. the compositionally, narratively and aesthetically efficient use of non-referential sounds to coexist with performative-activity sounds in order: (i) to produce satisfying musical results and (ii) enhance dramatization.

2.2 *Moments of Liberty II: Falling Within*

<u>Concept</u>

Moments of Liberty II explores the subconscious state of the character in his journey to find liberation. Within this state, female characters as deep elements of the character's subconscious appear to express the constant dramatic attempt to break free from the state of containment. Upward movements symbolise illusionary moments of feeling liberated, and constant fallings express a continuous failing to penetrate through containment and experience liberation.

<u>Analysis-Overview</u>

The analysis of the work illustrates the use of the method to establish suggestive-narratives: narratives that are suggestive of what performative-activity is happening. To do so, it discusses the following processes:

1. performance-scores and their design

2. selection criteria of the extracts from the scores' execution-recordings

3. musicalisation of the extracts in the associated parts of the composition (part 9 and 11).
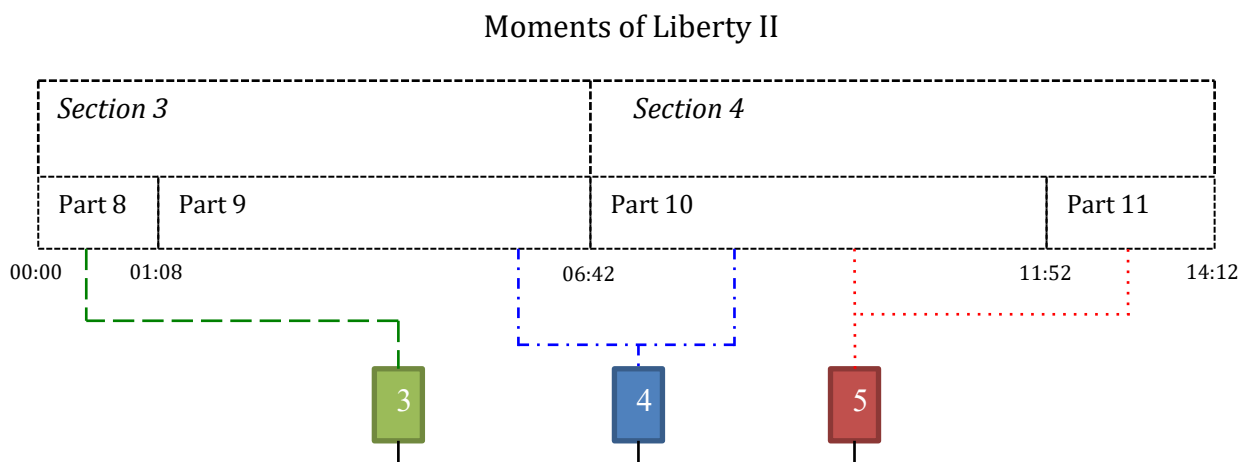
Figure 3: Moments of Liberty II structure diagram

<u>Method-Analysis</u>

Performance-scores are designed to be suggestive and create space for acts of improvisation. Based on this approach, performance-score 4 invites the two dance-performers to freely explore the space, with the idea that they cannot see one another. Gradually, they start to sense each other. When this happens, they are asked to start seeking each other in agony, through improvisations. As this seeking becomes more intense, the dancers are asked to move clockwise from the central receptive-point (with the microphone being a hypothetical spectator) and

24

gradually increase their moving pace to form a climax. At a time of their choosing, one of the two dancers is asked to bring the climax to its peak by turning anti-clockwise and crashing onto the other.

Performance-score 5, invites the dancer to explore the space. Through improvisation, the dancer is asked to realise that she is in the place of her containment. The dancer is further invited to improvise a dramatic response to this realisation by repeatedly falling hard on the floor and standing until she feels so exhausted that she is unable to stand up again.

Sound recording-extracts from the score-following performances were selected and musicalised by taking into consideration: (1) primarily, the sonorous qualities of the extracts in order to expose their musical and dramatic qualities and, (2) secondarily, their source-cause-context significations to establish some recognisable cues, with the aim to suggest a narrative. This approach specifies that the extracts are musicalised with primarily an intra-musical structuring[9]. To illustrate this process, part 9 and 11 of the composition are briefly analysed.

Part 9 (01:08-06:42)

In part 9, the following sound extracts from the recording of performance-score 1 were used: breathing (02:15, 02:25), walking (02:03, 02:09), cloth-friction (02:43, 02:53) and hitting gestures on body and floor (02:18, 04:20). The inter-musical structure of these sounds aimed only to partly expose their source-cause-context signification. This resulted in a suggestive-narrative where female characters in a psychological state of tension and agony follow a series of actions that are neither recognisable nor specified. The aim of this approach is to suggest, rather than describe what is happening and, as consequence, to draw perceptive-attention to the musicality and the dramatic qualities of the performance-activity rather than to its signification.

To further enhance this musical and dramatic exposition, performers were invited to explore various sounds they themselves produce. Specifically, they were invited to explore different gestures (soft, hard, gradual, quiet and loud) and gesture-types (percussiveness, friction, breath); objects they can use (body-parts, skin, clothes and the floor); the pace of action-articulation (slow to fast) and the distance of the action from the receptive-point (distant to proximate and different directions).

The rich variety of the extracts selected and edited from these recordings was then musicalised through an intra-musical structuring. Specifically, from 01:43 to 05:18, the variety of

---

[9] Intra-musical structuring, as stated before, is the counterpart of inter-musical structuring and stands for the structuring of a series of referential sounds by taking into consideration, primarily, their sonorous qualities and, secondarily, their referential qualities.

performative-activity based sounds was established through the following musicalisation approaches.

Spectromorphologically: variation in regard to sounds' spectral content and volume-profile, such as sustained texture-based sounds, initiated softly and quietly (02:13, 02:20) leading to shorter gesture-based sounds initiated loudly with sharp attacks (02:54, 03:10).

Temporally: variation in the temporal articulation of sounds from low to high pace and introduction of unexpected pauses (03:40, 04:00), enhancing tension and resolution through density and expectation.

Spatially: variation in the spatial articulation of sounds in terms of localisation-diffusion, position-direction, distance (distant-proximate) and movement (including its directions, vector and speed). This established a constant spatial perspective change throughout the part, exposing the musical and dramatic qualities of the performative-activity.

Coexistence: distinct (02:00-04:20) and fused coexistence of performative-activity with non-referential sounds (04:20-06:00).

Part 11 (11:52-14:12)

In part 11, the following extracts from the execution-recording of performance-score 5 were used: dramatic breathing sounds and percussive-gestures that resulted from the sounds of the dancer falling on the floor. Similarly to part 9, these sounds were selected and musicalised to evoke the musical and dramatic qualities of the particular performative-activity in addition to suggesting a narrative of continuous falling that symbolises failing and failure to stand up.

Conclusion

Completing the above analysis, it becomes clear that the use of the method to establish suggestive-narratives aims to:

1. project the musical and dramatic qualities of the performative-activity

2. partly expose the source-cause-context signification of the activity, evoking the sense that a performative-activity is taking place, if only partially recognised.

To achieve this, performance-scores are designed respectively by:

1. suggesting rather than describing what performatively will happen, creating space for improvisation

2. forming performative-activities that, due to the nature of the sounds they produced, are only partly recognisable

3. providing supplementary directions to the performers to explore various sounds that can be produced during their performance

The selection and musicalisation of the extracts from the execution-recordings of the scores, in response to the aforementioned aims, are based on:

1. establishing a variety of sounds in regard to their sonorous qualities

2. the potential of the sounds to evoke dramatic-qualities

3. the potential of sounds to suggest through the partial source-cause-context recognition of a performative-activity

Musicalisation further develops:

1. spatiotemporal-articulation and spectromorphological variation

2. the variety of coexistence-kinds of performative-activity based sounds with non-referential sounds.

2.3 *Moments of Liberty III: Standing Without*

Concept

Moments of Liberty III further explores the dramatic attempts of the characters to become liberated. Now supported and guided by the callings of ethereal entities, these attempts lead to the realisation that what causes the characters' containment is a fixed system of perception; a system that is none other than the self. The characters are then left wondering if the abandonment or destruction of the self will force their containment to break.

Analysis-Overview

The analysis illustrates the use of the method to:

1. select supplementary materials

2. musicalise materials into the composition in order to coexist efficiently and variably with the performative-activity based sound-material.

To do so, it discusses the following material and processes:

1. performance-scores and the sound-material produced from their execution

2. supplementary sound-material, its origin and selection criteria

3. musicalisation of supplementary and performative-activity sound-material in regard to the coexistence kinds, functions and balances they establish.

Moments of Liberty III
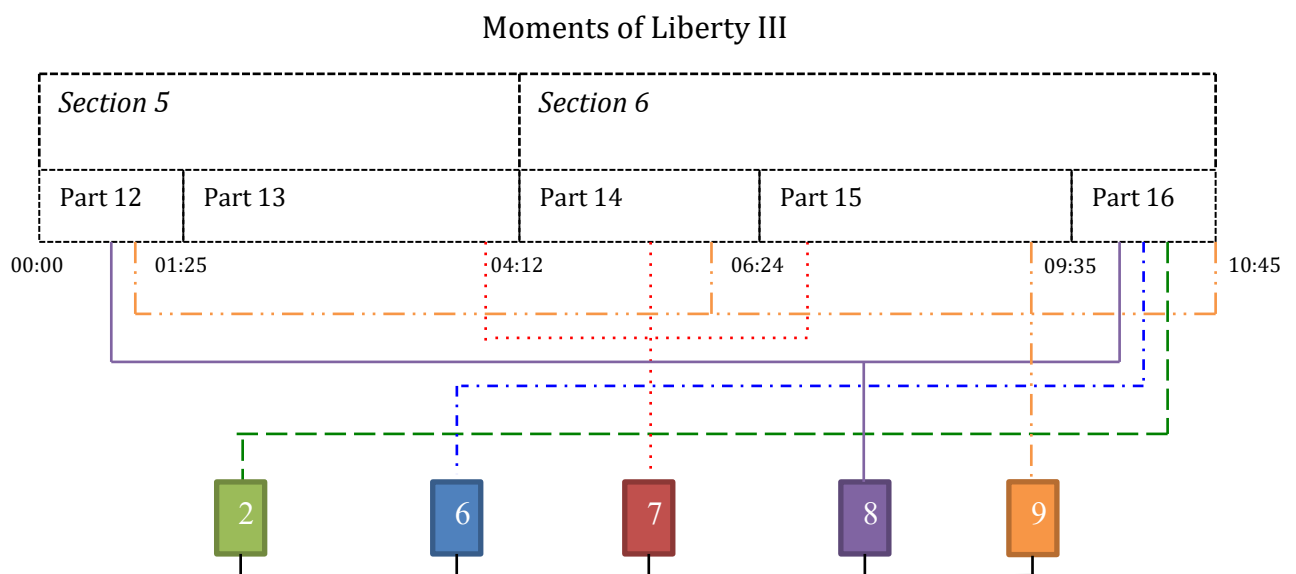
Figure 4*: Moments of Liberty III structure diagram*

<u>Method-Analysis</u>

The composition used percussive-hitting gestures, breathing and body-produced sounds. These have resulted from the execution of performance-score 8. The dancers are invited to explore and touch their containment boundaries (floor, walls and their body). As soon as they realise that they are trapped inside this space, they are asked to express suffocation and to desperately, violently and madly hit their boundaries, in an attempt to break free.

A vocal improvisation, based on performance-score 9, was also included, asking the performer:

1. to think of herself as an ethereal entity that through her call supports the characters to continue their journey

2. to listen to a particular mantra[10] and to be influenced by it spiritually and melodically

3. to listen to the harmonic content of a particular section of the current composition

4. to improvise on all these three instructions.

The score was designed to provide various melodic sounds that would significantly enhance the harmonic content of the composition.

One of the two groups of non-referential sounds used consists of:

1. striking a porcelain bowl

2. smashed plate pieces that are excited in various ways:

    a. gentle-delicate drop / sudden drop of small plate pieces to larger plate pieces

    b. gentle drop of salt grains onto the plate pieces

    c. plate pieces dragging on other plate pieces.

Symbolically, the smashed plate pieces were selected as a reference to the idea of fragility and to the metaphor of breaking into pieces, both describing the state of the characters. Sonically the sounds were selected to:

1. create rhythmic pitch-based gestures and grainy, high frequency noise-based textures

2. become impulse-responses for the reverb processing of the dancers' percussive gestures.

---

[10]Sound of Isha's mantra *Shampho* (2012).

The second group of non-referential sounds used consists of harmonic resonances recorded from a piano. These resonances are used as impulse responses for a convolution reverb that is activated by the percussive gestures of the dancers.

Part 12 (00:00-01:25)

In part 12, the performative-activity sounds (hitting percussive-gestures and breathing sounds) coexist with the supplementary sound-material (singing voices, pitched-striking rhythmic gestures, high-frequency grainy and harmonic textures) and establish the following relationships:

Interactive relations formed between:

1. Percussive gestures initiating piano harmonics textures (00:07, 00:12).

2. Percussive gestures initiating high frequency grainy textures (00:19) causing a change to one or more of its sonic parameters (00:22).

Non-interactive relations - sounds that move independently without interacting with the performative-activity sounds - formed between:

1. singing voices (00:35-00:43)

2. in some cases, the grainy textures (00:15)

3. pitched-striking rhythmic gestures (00:26-00:30)

Coexistence relations (mixing) among supplementary and performative-activity sound-material:

1. In terms of presence, both supplementary and performative-activity sound-material is equally present at 00:00-00:25 and supplementary sound-material is more present at 00:25-00:32 and 00:52-01:25.

2. In terms of spectromorphological content, short and sharp non-pitched gestures and breathing performative-activity sounds are balanced with pitch-based harmonic and noise-based supplementary textures.

3. In terms of material separation, performative-activity and supplementary sound-material are presented distinctly, not fused into one another.

Part 15 (06:24-09:35)

In part 15, the following coexistence relations are formed between performative-activity and supplementary sound-material:

1. Interactive relations are formed, in cases, with the singing voices being initiated from various gestures (06:43, 07:13). This resulted from the use of the singing voices as an impulse-response to a convolution process that is triggered by the aforementioned gestures. Percussive gestures are also interactive with both high-frequency grainy textures (07:13, 08:20) and the harmonic-textures (07:11, 07:04) in similar ways to part 12. Additionally for this part, the gestures initiate grainy textures - reminiscent of cracking sounds - (08:14, 08:18) by being processed in a convolution reverb that used the dropping plate pieces sound as an impulse-response.

2. Non-interactive relations are formed, in cases, when the singing voices (06:47, 07:45) and grainy textures (06:24, 06:48) are presented independently.

Coexistence relations (mixing) among supplementary and performative-activity sound-material:

1. In terms of presence, there are transitions in all states, from supplementary sound-material being more present (06:24-6:40) to performative-activity sound-material being more present (09:20-09:35) and both being equally present (06:55-09:20).

2. In terms of spectromorphological content, the supplementary grainy-textures dominate the percussive gestures and breathing performative-activity sounds. This domination resulted from the continuous superimposition of grainy-texture sounds. Changes of this domination happen momentarily when singing sounds are exposed into the foreground (07:59) and performative-activity sounds are exposed unaccompanied and unprocessed (09:20-09:35).

3. In terms of material separation, there are moments where supplementary and performative-activity sounds are presented distinctly. For longer sections (07:56-09:20), the convolution-processing fuses performative-activity sounds and the dense grainy-textures.

In summary, supplementary and performance-activity sounds establish the following:

1. Coexistence relations that are:
    a. interactive/non-interactive
    b. distinct/fused

2. coexistence balanced by:

    a. presence

    b. spectromorphological content

3. coexistence functions that represent changes and transitions between the coexistence relations and balance.

Conclusion

The analysis has specified the two kinds of sound-material used (supplementary and performative-activity) and revealed the coexistence (kind, function and balance) relations that can happen between them. The use of the method in selecting supplementary sound-material to coexist variably with the performative-activity sound-material aims:

1. to define the supplementary sound-material content that would encompass and merge with the performative-activity by selecting the appropriate-functional sounds in terms of both sound and narrative.

2. to efficiently bring the two kinds of material together in coexistence by considering the various coexistence possibilities.

3. to enhance musical progression and structural development by considering the various coexistence possibilities and changes that can occur throughout the composition and the various ways in which these can happen.

4. to enhance dramatization when necessary by establishing coexistence relations that would support dramatic qualities like tension, agony and resolution.

2.4 *Moments of Liberty IV: Towards the Sea*

<u>Concept</u>

Moments of Liberty IV concludes the journey of the character by suggesting the exit from his space-place of containment. Instead of breaking the space-place the character is guided by an ethereal entity to exit it using the reverse path. At the same time, the composition itself, in an imaginary condition, goes beyond this narrative in an attempt to become liberated from its prearranged aesthetically and narratively driven compositional self.

<u>Analysis-Overview</u>

The analysis illustrates the use of the method to:

1. capture the executions of the performance-scores using a range of recordings-techniques

2. musicalise selected extracts of these recordings into the composition by taking into consideration:

   a. the extracts' spatial characteristics and the sonic and narrative impact these characteristics have

   b. the reproduction possibilities and the further spatial exploration offered by the selected 8-channel surround playback format.

To do so, it discusses the following processes:

1. Recording and its impact on the performative-activity sound-material

2. Performance-scores' spatial design in relation with their narrative content

3. Musicalisation of the performative-activity sounds-material with regard to their spatial characteristics and the narrative, sonorous and spatial effects these have on the composition.

Moments of Liberty IV
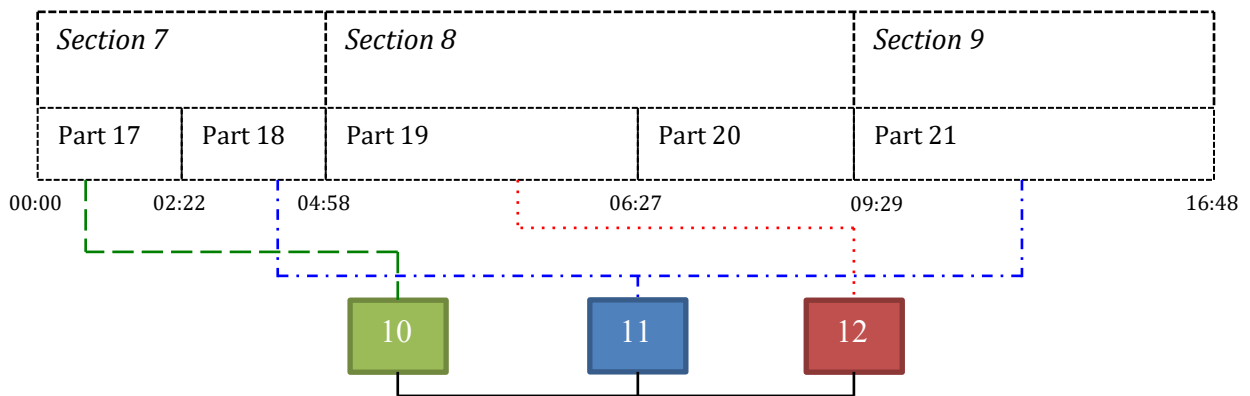
Figure 5: Moments of Liberty IV structure diagram

<u>Method-Analysis</u>

The recording-techniques used simultaneously for this composition were ambisonic and binaural[11]. For ambisonic recordings, the microphone was placed in the centre of the performance-stage to spherically capture:

1. the performance-stage as a space-environment-place

2. the performative-activity in all directions and distances it can take place and move in regard to the microphone's receptive-point.

In the binaural technique, two pairs of microphones were attached to each of the two participating performers to:

1. capture extremely closely all of the sounds they produce

2. capture their surrounding sound-environment as received by them.

An 8-channel surround configuration was selected, allowing for the:

1. reproduction of the ambisonic recordings in a way that would surround the listeners and place them into the centre of the performance-stage

2. compositional exploration of surround space through the spatial articulation and processing of the selected recordings-extracts.

---

[11] For sound examples demonstrating the different recording techniques used to capture the performance-scores, please see the associated section in the Appendix.

Part 18 (02:22-04:58)

Part 18 is based on performance-score 11 that directs the female performer as an ethereal entity to walk through an outdoor space and find the male character in his room of containment. This part consists of the following performative-activity sounds: breathing (03:35, 04:03) and walking on rocky ground (03:25) and dry branches (03:41). The activity is presented only from the back of the playback-space with variation only in terms of distance. This was achieved by editing selected performative-activity extracts from the binaural recording. In this way, it was possible to precisely place the extracts in the back of the playback-space and to closely project the performers' activity and presence (proximate breathing and walking sounds).

Part 18 also consists of a soundscape that encompasses the performative-activity. The soundscape is made of various bird utterances [crows (2:34), seagulls (02:54) and swallows (03:17)], and constant (02:34) and gusting (03:16) wind sounds. Spatially, the soundscape is projected in surround with its constituent sound-sources presented in various directions and distances, diffused or localised, and in position or in movement. These presentations, along with the ones inherently found in the recordings, were established by montaging and mixing different extracts of this particular soundscape.

Part 19 (4:58-06:27)

Part 19 is based on performance-score 12 that directs the male performer to constantly pick up rocks found all over the room, putting them together to make a wall and then pushing them and letting them fall on the ground. The score's execution results in the following sounds: dragging rocks (05:11); putting rocks on top of other rocks (05:17); pushing rocks to fall on the ground (06:02); walking (05:51); breathing (6:04) and rubbing the wall, resulting in the fall of stucco pieces (05:42-05:49).

The performance-activity of part 19 takes place in an indoor space with the listener being in the centre. The activity is projected variably in terms of distance, direction, diffusion and localisation. An example of this is the diffused and distant projection of a performative-activity extract followed by a more proximate and localised one; such as the distant and diffused walking of the character (05:03) moving to the proximate and localised activity of dragging a rock (05:11). Another example is the projection of performative-activity phrases in a specific location using only binaural recordings and assigning them to be played back from specific combinations of loudspeakers. For example, the wall-rubbing activity that takes place at moments only from the sides of the playback-space (05:42, 05:48). Finally, by mixing the simultaneous ambisonic

and binaural recordings of the performative activity, it is possible to move between and superpose the spherical projection of the activity and the specific locations captured binaurally.

Part 20 (09:29-16:48)

Part 20 is based on performance-score 11 that directs the male and female performers to communicate from the two opposite sides of the room by producing various sounds on the walls. As heard in this particular part (10:29-11:28), the female performer is placed on the left side and the male character on the right side. The binaural and ambisonic recording of the activity were mixed to both expose the action and, at the same time, create a realistic sense of the room.

The score also directs the female performer to exit the room and, while walking, draw a line on the wall using a rock. She is then asked to walk away from the room into the outdoor space and throw the rock on the ground. Finally, performance-score 11 invites the male performer to follow the same series of actions. Spatially, the original movement of the performers when drawing a line on the wall was maintained. This important amalgamation of inside and outside is further developed through mixing the male breathing sounds inside the room (14:21) with the female walking in the outdoor space (14:32). The breathing sounds were projected in the front half of the playback-space; the walking was projected in the rear.

Conclusion

As seen from the analysis, the aims of the method used to capture and musicalise performative-activity sounds in regard to their spatial-characteristics are:

1. Narratively, to enhance the recognition of:

    a. the presence of humans-characters and their various activities

    b. their location and movement in space

    c. the space as a place, (from outside to inside and even more specifically from a natural outdoor space to an indoor reverberant one)

    d. the dramatic-qualities and psychological state of the performers through, for example, the proximate capture of their breathing and activity when they are tense or calm.

2. Musically to enhance structural development and musical progression though the perception of changes-happenings caused from:

    a. variations on sounds' spatial projections

b. variations in different spectromorphological exposition of the same sound sources caused by their different spatial projections in terms of distance.

To achieve these aims:

1. Performance-scores are designed to:

    a. invite performers to move inside a space exploring its characteristics of distance, direction and location

    b. explore space as place

2. Executions of the performance-scores are recorded with different recording-techniques to capture spherically and proximately:

    a. the performative-activity with all its spatial characteristics in terms of location, direction and movement

    b. the sound-environment encompassing the performative-activity

3. Musicalisation of the performative-activity sounds though the use of the 8-channel surround playback format to:

    a. reproduce the captures spatial characteristics of sounds

    b. to further explore spatial characteristics through various compositional approaches.

2.5 *Echo the nymph of reflection*

<u>Concept</u>

Echo the nymph of reflection is a work inspired by the myth of the tragic nymph Echo. The work refers to the punishment Hera delivered upon Echo; a punishment that allowed her only to repeat the last words spoken by another person. *Echo the nymph of reflection* explores ideas of self-reflection and self-destruction.

<u>Analysis-Overview</u>

Echo the nymph of reflection uses the method to recontextualise previously used performative-activity sound-material. It does this through the comparison of materials used in *Echo*[12] and reused in *Echo the nymph of reflection*, noting specifically narrative differences and similarities.

Echo (dance composition)
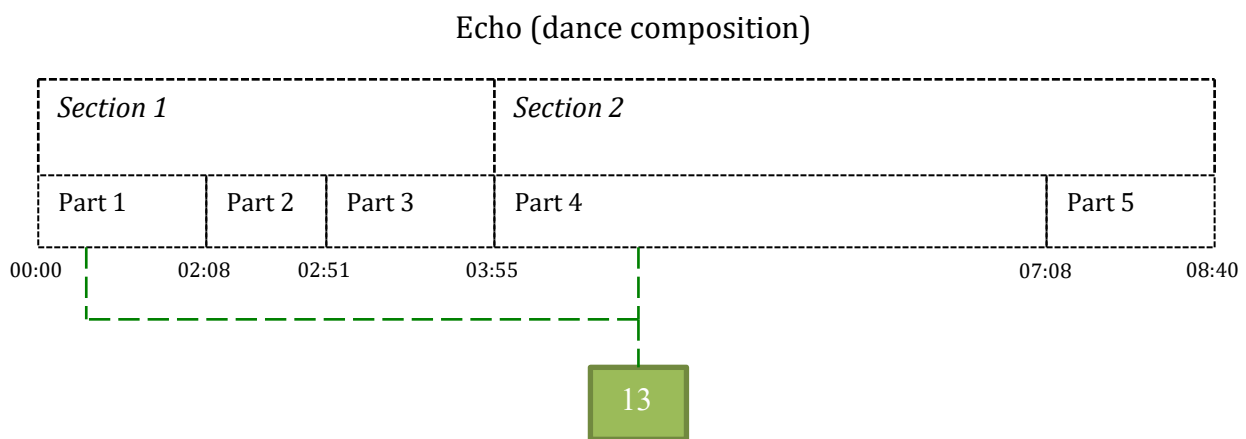
Figure 6: Echo (dance composition) structure diagram

Echo the nymph of reflection
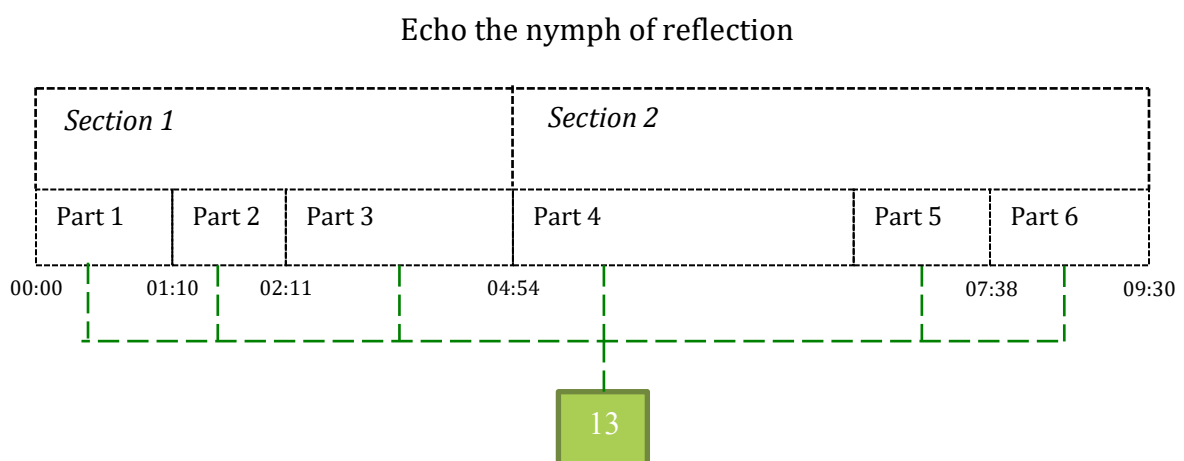
Figure 7: Echo the nymph of reflection structure diagram

---

[12] The composition *Echo* can also be found in the same folder as *Echo the nymph of reflection.*

Method-Analysis

The performative-activity sounds used in both compositions are based on performance-score 13. The score invites the performer:

1. to act like the nymph Echo and run in agony and despair on the performance-stage as if it was the forest, responding in this way to the tragic events she had experienced

2. to explore space in terms of distance, location and movement direction and speed in regard to the receptive-point (microphone-recording point) and to think of this as an expressive tool

3. to use her trench-coat like a costume to produce flapping sounds and think of these gestures as another expressive tool.

These directions, along with partly covering the performance-stage with dry bougainvillea flowers, resulted in different recordings of the dancer:

1. running: changing intensity - volume (from low to high), pace (from fast to slow), location - distance - movement (from left to right, from distance to close and vice-versa)

2. breathing

3. producing sounds from running on dry flowers and the wooden floor

4. producing flapping sounds from the performer's costume.

In *Echo*, the aforementioned dancer's running sound-material is used in part 2 (02:08 - 02:51) and 7 (03:55 - 07:08), and in *Echo the nymph of reflection* it is used throughout the whole composition. The two compositions explore similar variations of the materials' spatiotemporal articulation. These concern the use of phrases where the dancer is moving in different locations, directions, distances, paces and intensities (far to close, left to right, slow to fast and quiet to loud). Examples in the compositions of these patterns are: fast, far-close-far and left-right (A:02:18, 04:00; B:00:55)[13] or right-left (A:02:28; B:01:45) close-far and left-right (A:04:14; B:05:08); far-close, left-centre and slow (A:04:27); low (A:06:46; B:01:56) and high (A:05:26; B:00:01) intensity.

Similarities are also found in the way the phrases are structured horizontally. Specifically, different lengths of phrases are used from short (A:5:50, 04:27; B:00:05) to long (A:04:54, 06:53), alternated with different paces; from slow with pauses in between them (A:part2;

---

[13] 'A' refers to the dance composition *Echo* and 'B' refers to the composition *Echo the nymph of reflection.*

B:01:34-02:00) to fast, causing the phrases to overlap (A:06:34-06:46; B:06:42-06:55). Similar variations are also found in regard to the spectromorphological content of the material. Some phrases include the breathing sound of the dancer (A:05:07; B:05:33), some include the cloth flapping-gesture (A:06:27; B:00:10), some present the running taking place on the floor (A:04:36; B:00:02) and some on the flowers (A:02:48; B:01:46).

The two compositions differ when it comes to supplementary sounds used and the spectromorphological transformation of the dancer produced sound-material. Specifically, in *Echo* there are limited supplementary sounds used (noise-based textures and stretched processed breathing sounds) and one basic spectromorphological transformation of the performative-activity sounds (stretch-morphing processing of the running phrases that created the noise-based textures). In *Echo the nymph of reflection* there is a rich variety of supplementary sounds used: water splashing sounds (00:03, 01:57), harmonic textures in different spectral regions (00:04, 00:07, 00:47), and voice [whispering (00:08), singing: melodic (01:59) throat (02:31 - 04:46), reminiscence to language (00:21, 00:26)]. There are also more spectromorphological transformations of performative-activity gestures (dancer when stepping on the floor and flapping her costume). These transformations include the transportation of the gestures in various spectral registers, a change in their playback speed and applying on them sample-based work (splitting, repeating and reordering samples).

In regard to the coexistence (mix) of supplementary and performative-activity sounds, *Echo* includes parts where the noise-based textures and breathings are densely fused with the dancer's running phrases (04:01). There are also moments where the particular sounds interact, like noise-based textures increasing their volume during (06:29) or after (05:38) the presentation of a running phrase. In *Echo the nymph of reflection*, there are many parts where the aforementioned performative-activity gestures are densely superimposed and fused with their transformations, various splashing water gestures and harmonic textures. This superimposition created composed (00:03, 05:07, 05:59) and composite[14] (07:28, 07:19) gestures. Further to this, there are many moments where supplementary sounds interact with performative-activity gestures: a running phrase could be initiated from a gesture (05:50, 05:59) or a voice (05:11→05:14, 05:58→05:59) and vice-versa (05:20→05:22, 06:03).

Taking into consideration the above analysis, it can be noted that the performative-activity running sounds, regardless of their contextualisation, preserved the recognition of a

---

[14] Composite gestures are defined by Vande Gorne (2018, p35.) as the composite sound object, an object that consists of different sound-materials densely put together creating the feeling of one, whole unified sound.

human-character, that, in a state of agony and tension, runs on stage in different directions, paces and intensities. Further to this, the similar musicalisation of the material in both compositions, is noted to have reinforced tension and agony through: the enhancement of spatial movement; sudden cuts; the use of pauses to create expectation; increased articulation, and the intense and intimate exposition of the breathing and flapping-cloth sounds.

The different approaches followed in the musicalisation of the material in both compositions are observed to have the following narrative effects. In *Echo*, the limited supplementary sound-material used, brings narratively into the foreground the performative-activity with other material to accompany it, thus forming a single narrative-thread and relatively simple narrative-world. Furthermore, the alternation of unaccompanied performative-activity sounds and densely fused ones with supplementary sounds and overlapping articulation establish movements from reality to abstraction. In *Echo the nymph of reflection*, the rich variety of supplementary sound-material, its narrative qualities and its interaction with performative-activity sounds forms more narrative-threads and overall a more complex narrative-world. These regard both: (1) the various voices and their significant narrative impact as independent elements and as interacting and connecting with the performative-activity and (2) the intense spectral transformation in part 5 and 6 that suggest a movement towards a new narrative-thread.

Conclusion

The method of recontextualising previously used performative-activity sound-material demonstrated that:

1. a significant number of narrative characteristics of performative-activity sound-material can be preserved regardless of their contextualisation

2. musicalisation approaches of the particular materials regardless of the supplementary sound-material used can enhance these narrative characteristics

3. musicalisation-contextualisation of the material with the different supplementary sounds can significantly impact the narrative experiences created from the composition, establishing single or multiple narrative-threads and simple to more complex narrative-worlds.

2.6 *Once there was a forest I and II*

Concept

Once there was a forest I and II aim to create acousmatic fixed-media experiences for two different versions of a dance with live-electronics performance. The works preserve the original order of the performance events, but present them through a dynamic change of spatial perspectives.

Analysis-Overview

The analysis below illustrates the use of the method to convert two live performances into two acousmatic fixed-media works. It shows:

1. how the performance-scores were used to define:

    a. the structure of the performances and the compositions

    b. the dance-embodied performative-activity and music-performance sound-material

2. how the performances were recorded

3. how the recordings were used to create acousmatic fixed-media experiences of the original performances.

Once there was a forest I
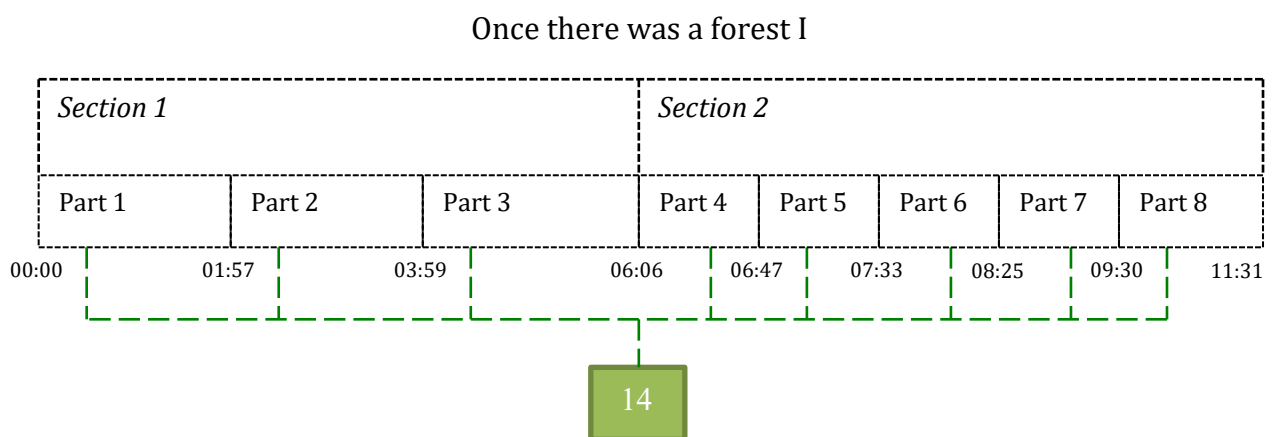
Figure 8: Once there was a forest I structure diagram

Once there was a forest II
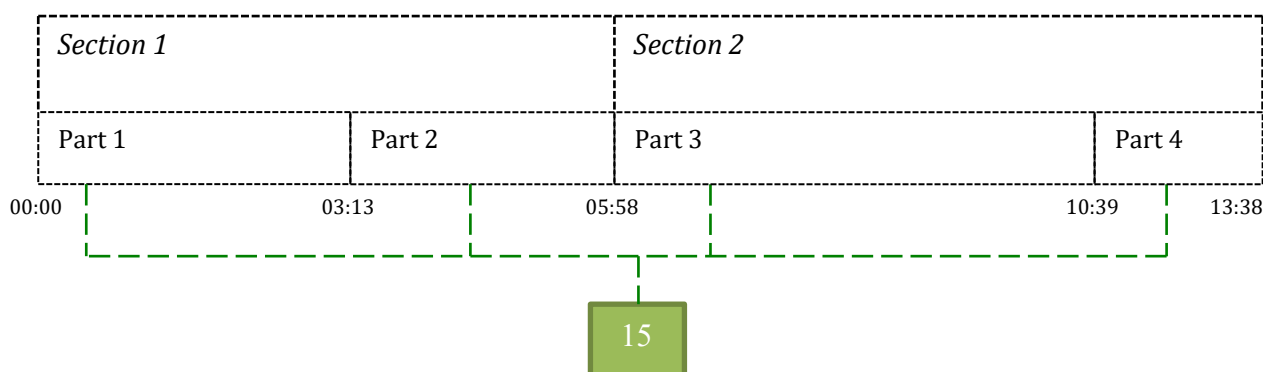
Figure 9*: Once there was a forest II structure diagram*

Method-Analysis

The analysis commences by addressing a significantly different use of the method in comparison with the previous compositions. That is the use of performance-scores to define both the complete structure of the works and almost all the sounds-material these consist of. Specifically, by examining performance-scores 14 and 15 (see Appendix), the video recordings of the scores' execution[15] and the conversion of the performances to the compositions *Once there was a forest I and II*, it becomes clear that the performance-scores have:

1. defined, to a significant degree:

    a. what is happening in terms of dance and music performance and, thus, defined the sound-material produced

    b. when things are happening and, thus, defined the structure

2. created space for structured improvisation and, thus, allowed a relative flexibility in the above processes.

The success of the performance-scores to define the complete structure and sound-material of the works lies:

1. in the fact that both music and dance scores are the result of a long process of a collaborative experimentation (see 1.3 and program notes) directed by the choreographer.

---

[15] The video recording of the scores' execution can be found in the folders which are located in the portfolio of compositions on the associated usb flash drive.

2. in the degree to which the scores facilitated the complete structure and sound-material, rather than preliminarily source recordings.

While performance-scores significantly defined the content and structure of the compositions, the conversion of their resulting performances into acousmatic fixed-media experiences has been determined by:

1. Recording complete performances in one take to preserve the order and duration of events and maintain a sense of 'liveness'.

2. The simultaneous recording of performances from different spatial locations (see 1.3 and programme notes) in order to capture different spatial listening perspectives of the performance[16]. Specifically, the different spatial recording perspectives are:

    a. the dance-performer's perspective; binaural microphones attached on the performer

    b. the audience perspective; stereo recording of the performance in front of the performance-stage and in the audience location

    c. the music-performer's internal perspective; internal DAW recording of all the sound-processing channels used and the mixed sound output of the performer to the loudspeakers.

The conversion of these recordings into the compositions *Once there was a forest I and II* is based on the following compositional approaches:

1. Preservation of duration and structure of the performances in order to enhance the recognition that what is experienced came from a live performance[17].

2. Non real-time processing of the dancer's binaural recording. This approach was only used in section 2 (05:38-13:38 → video 06:10-13:38) of *Once there was a forest II*. The aim of this processing was to preserve the liveness of the performance and also to establish a harmonic and a granular progressive transition of the material.

3. Remixing the different spatial recordings of the performances. This approach was applied to enhance the conversion of the performances to acousmatic experiences by offering

---

[16] For sound examples demonstrating the different spatial recording perspectives, see the associate performance-scores in the Appendix.

[17] The length of some parts was shortened (A: section 1 (00:00 - 06:00)→ video (00:00 - 08:00)) to enhance musical flow.

fixed and dynamic changes in spatial perspectives of the performances that could not be experienced in their live presentation. Examples of this approach are:

a. Creatively adjusting distance by crossfading between recordings from the perspective of the dancer and the audience. Examples are the dancer imitating a heartbeat by hitting a pebble on her chest (A: (06:05-07:19) → video (08:45-09:52))[18] and the dancer inside the plastic moving it intensively (B and video (10:53-11:11)).

b. Foreground-background balancing of the unprocessed sounds of the music performance against a processed version by dynamically adjusting volume. An example is the wind and pitch sounds produced with the whistle, while originally being in the foreground have now been silenced at the beginning and then put into the background. At the same time, the stretched-morphed harmonic-textures, produced from the sound-processing of the particular sounds, have been placed into the foreground (B and video (00:00-02:50)).

c. Crossfading between recordings of the solo music-performance played directly from the DAW and the same recording captured by the audience recording location. This resulted in the proximate projection of processed sounds and their spectromorphologies that could not be experienced in their live presentation. An example is the screaming voice heard in the distance and then close. A movement that brings along the proximate and detailed noise-textures that have resulted from its sound processing. The voice becomes distant then continues to change spatially (A: (04:33-05:35) → video (06:35-07:35); B: (04:13-05:28) → video (04:40-05:55)).

d. Foreground-background balancing the dance and music performance by alternating their volume or silencing one of the two. An example is the silencing of the dancer moving the plastic and then reintroducing it selectively (A:(00:54-04:22) → video (02:00-06:00)).

Conclusions

The analysis has shown the use of the method to convert dance with live-electronic performances into fixed-media compositions. Reflection upon these two works has revealed a different use of the method in comparison with the previous compositions where:

---

[18]By comparing the video recording with the composition, the reconfiguration-remix of the different spatial perspectives becomes clear.

1. performance-scores were formed through a long collaborative interactive experimentation process defining the complete structure of the works and almost all their sound-material.

2. simultaneous recordings of the performance happened in one take from various spatial perspective-locations.

3. the recordings were converted into compositions, maintaining the feeling of a live performance, but presented through dynamic moving spatial perspectives that would not have been possible to be experienced in their live presentation.

4. extremely proximate presentations of sounds revealed spectromorphological details that would not have been possible to have been experienced in their live presentation.

Conclusions

This thesis proposed a bespoke method for incorporating narrative into works of electroacoustic music. The method involved the production of performance-scores, the recording of their execution and the use of the recordings to compose the musical works. The analysis of the method in regard to these creative stages, produced, respectively to the objectives (1.3), the following findings:

1. Performance-scores and recording techniques determined the nature of the recorded sound-material in terms of narrative content, musical variety and sonorous-aesthetic qualities. Specifically, descriptive performance-scores defined to a great degree the performative-activity, presupposing its relevant recognition by the listener. Suggestive performance-scores proposed a performative-activity creating space for improvisation and presupposing its partial recognition. In descriptive performance-scores, recording techniques enhanced the material's recognition, and in suggestive performance-scores they led to the material's partial recognition so that its suggestive effect could be achieved. The scores have also strongly impacted the material's musical variety by producing different performative-activity sounds in terms of sound-sources, dramatization and space. Recording techniques contributed to this variety by providing recordings of all these materials from different spatial perspectives. Finally, performance-scores and recording techniques through this variety have significantly impacted the material's sonorous-aesthetic qualities.

2. Selection criteria of the performances recording extracts and their musical development were determined by the individual compositional aims of each part of the compositions. When the aims were narrative focused, the method was used to establish descriptive narratives. In response, the selection and musicalisation of the extracts aimed, primarily, to establish a relevant recognisability of the performative-activity sound-material and, secondarily, to establish a musical variety among the material. Respectively, when the aims were musical-sonorous focused, the method was used to establish suggestive narratives. In response, the selection and musicalisation of the extracts aimed, primarily, to expose the musicality and dramatic qualities of the performative-activity sound-material and, secondarily, to establish a partial recognition of the sound-material as cues, suggesting that something is happening but without specifying exactly what it is. Supplementary sounds were selected to reinforce performance-activity sounds either through a symbolic connection or, more importantly, through spectromorphological connections.

3. The various ways of musicalising the performative-activity sound-material were driven by the central process of inter- and intra-musical structuring. Inter-musical structuring was closely related to narrative aims; intra-musical structuring was closely related to musical-sonorous aims. However, the analysis of the works in this portfolio demonstrated a fluid approach between the two. The further musicalisation processes that were driven by structuring were: (1) the various spatiotemporal, spectromorphological and causal-relations based upon organisation of the extracts and (2) the various ways the extracts were edited, spectromorphologically transformed and mixed with supplementary non-referential sounds.

4. Musicalisation had in most cases a strong narrative and musical impact on the material. The narrative impacts were: the recognition of the performative-activity; the highlighting of the material's dramatic qualities and, in cases, the establishment of different and more complex narrative-threads. The musical impacts were: the establishment of musical variety and the enchantment of structural development. In cases, musicalisation was also seen (2.5) not to impact the narrative characteristics of performative-activity sound-material, as these were preserved regardless of the materials' contextualisation.

5. Performance-scores impacted, to different degrees and lengths, the structure of the compositions. When scores were designed during the creative process, they were adhered to closely and the composition was predetermined by the score. For the remaining compositions, scores delivered anything from short passages to larger sections and, as a consequence, were used more freely.

Taking into consideration the above findings, the research questions (1.2) are answered as follows:

1. The strategies to predetermine and prepare sound-material intended to be used for incorporating narrative into works of electroacoustic music are: the design of performance-scores, their execution and the capturing-recording of the resulting performances.

2. These materials in order to presuppose a narrative need to be recorded and edited in ways that will at least provide some basic cues that a performative-activity is happening.

3. The materials are structured in the compositions to presuppose a narrative depending on the compositional aims to establish either descriptive or suggestive narrative. Specifically, the materials either:

a. maintain their recorded structure if this was adequate to evoke the sensation that a performative-activity is happening both descriptively or suggestively

b. or their structure is alternated through editing or combination with other performative-activity sound-material for it to become adequate in evoking the above sensation or for even changing the original recorded narrative-thread of the material to something new.

4. The proposed method worked best when incorporated within the broader acousmatic method.

Taking the above into consideration, the central research questions may be answered as follows:

1. Seven compositions have developed a method that appears to be durable and flexible enough to be used repeatedly and produce distinctive and different kinds of narrative.

2. It is hoped that this research has provided a coherent image of a compositional method incorporating narrative in electroacoustic music.

Bringing this thesis to an end, it is hoped that the proposed compositional method of dramatized-performative narrative will contribute to the composers' community by providing a well-documented method of incorporating narrative into works of electroacoustic music. It is further hoped that the proposed method along with its resulting music will motivate composers to explore it by adapting and incorporating it into their own unique practices. By doing so, it is finally hoped that composers will further develop and expand the method by composing works that take advantage of the phenomenon of narrative, in all its diverse forms.

Table of figures

Bibliography

Abbott, H. P., (2008). *The Cambridge introduction to narrative (2nd ed.).* Cambridge : Cambridge University Press.

Amelides, P., (2016). Acousmatic Storytelling, *Organised Sound*, 21(3), pp. 213–221.

Andean, J., (2010). The Musical–Narrative Dichotomy: Sweet Anticipation and some implications for acousmatic music. *Organised Sound, 15*(2), pp.107-115

Andean, J., (2016b). Narrative Modes in Acousmatic Music, *Organised Sound*, 21(3), pp. 192–203.

Batchelor, P., (2015). Acousmatic Approaches to the Construction of Image and Space in Sound Art. *Organised Sound*, 20(2), pp. 148-159.

Bell, M., (2005). Performativity. In: Herman, D., Jahn, M., & Ryan, M.-L(eds.) *Routledge encyclopedia of narrative theory.* London: London : Routledge.

Berns, U., (2014). Performativity. [online] In: Hühn, Peter et al. (eds.). *The living handbook of narratology*. Hamburg: Hamburg University. [Viewed 12 February 2019]. Available from: http://www.lhn.uni-hamburg.de/article/performativity

Burrows, J., (2010). *A choreographer's Handbook;* New York: Routledge.

Çamci, A., (2016). Imagining through Sound: An experimental analysis of narrativity in electronic music, *Organised Sound*, 21(3), pp. 179–191.

Collins English Dictionary online., (©2018). Rotolito: Harper Collins Publishers. [Viewed 12 March 2019]. Available from: https://www.collinsdictionary.com/dictionary/english

Davies, S., (2011). Musical Meaning in a Broader Perspective. In: *Musical Understandings and Other Essays on the Philosophy of Music*. Oxford University Press, pp. Musical Understandings and Other Essays on the Philosophy of Music, Chapter 7.

Emmerson, S., (1986). The relation of language to the materials. In: *The language of material to electroacoustic music.* London: The McMillan Press. pp. 17-40.

Giannoukakis, M., (2016). Narrative in Form: A topological study of meaning in transmedial narratives, *Organised Sound*, 21(3), pp. 260–272.

Giomi, F., & Ligabue, M. (1998). Understanding electroacoustic music: Analysis of narrative strategies in six early compositions. *Organised Sound*, 3(1), pp. 45-49.

Hoffman, E. 2013. 'I'-Tunes: Multiple Subjectivities and Narrative Method in Computer Music. *Computer Music Journal,* 36(4), pp. 40–58.

Jacobson R., (1971). Language in relation to other communication systems. In: *Selected Writings II.* Paris: Muton. pp. 697-711.

Koelsch, S., (2011). Towards a neural basis of processing musical semantics. *Physics of Life Reviews*, 8(2), pp.89–105.

Kramer, L. (1991). Musical Narratology: A Theoretical Outline. *Indiana Theory Review, 12*, pp.141-162.

Kreiswirth, M. (2005). Narrative turn in the humanities. In: Herman, D., Jahn, M., & Ryan, M.-L(eds.) *Routledge encyclopedia of narrative theory.* London: London : Routledge.

Landy, L., (2007). From Intention to Reception to Appreciation: Offering Listeners Some Things to Hold On To. In: *Understanding the art of sound organization*. London: MIT. pp. 21-35

Loxley, J., (2007). Introduction/ From the performative to the speech act. In: *Performativity.* New York: Taylor & Francis. pp. 1-21

Meelberg, V., (2006). *New Sounds, New Stories : Narrativity in Contemporary Music* (LUP Dissertaties). Leiden: Leiden University Press.

Merriam Webster English Dictionary., (©2016) Martinsburg: Mariam-Webster, Incorporated. [Viewed 12 March 2019]. Available from: https://www.merriam-webster.com

McAuley, G., (2007). State of the Art: Performance Studies. [online] SemiotiX 10 [viewed in 15 of February 2019]. Available from: https://semioticon.com/sx-old-issues/semiotix10/sem-10-05.html

Meuter, N. (2013). Narration in Various Disciplines. In: Hühn, Peter et al (eds.) *The living handbook of narratology*. Hamburg: Hamburg University. [online] <http://www.lhn.uni-hamburg.de/article/narration-various-disciplines/> [view date:8 Nov 2016]

Nattiez, Jean-Jacques, (1990a). Can One Speak of Narrativity in Music? *Journal of the Royal Musical Association*, 115(2), 240–57.

Nattiez, Jean-Jacques, (1990b). Musical Meaning: The Symbolic Web. In: *Music and Discourse: Towards a Semiology of Music.* Princeton: Princeton University Press. pp. 102-129.

Norman, K., (1996). Real-World Music as Composed Listening. *Contemporary Music Review.* **15**(1–2): 1–27.

Norman, K. 2000. Stepping Outside for a Moment: Narrative Space in Two Works for Sound Alone. In: S. Emmerson (ed.) Music, Electronic Media and Culture. Aldershot: Ashgate. pp. 217-239.

Norman, K. 2004. Sounding Art: Eight Literary Excursions through Electronic Music. Aldershot: Ashgate.

OED online., (©2019). Oxford: Oxford University Press. [Viewed 10 February 2019]. Available from: http://www.oed.com

Pinheiro, S., (2016). 'Acousmatic Foley: Staging sound-fiction', *Organised Sound*, 21(3), pp. 242–248.

Roads, C., (2015). Sonic Narrative. In: Composing Electronic Sound: A new Aesthetic. USA: Oxford University Press, pp.318-337.

Rudrum, D., (2005). From Narrative Representation to Narrative Use: Towards the Limits of Definition. *Narrative, 13*(2), pp. 195-204.

Ryan, M-L., (2014). Narration in Various Media. In: Hühn, Peter et al (eds.) *The living handbook of narratology*. Hamburg: Hamburg University. [online] <http://www.lhn.uni-hamburg.de/article/narration-various-media/> [view date:8 Nov 2016]

Ryan,M-L., (2007). Toward a definition of narrative. In: Herman, D. (ed.) *The Cambridge Companion to Narrative.* Cambridge: Cambridge University Press. p. 22–36.

Ryan, M-L., (2006). Semantics, Pragmatics, and Narrativity: A Response to David Rudrum. *Narrative,* 14(2), pp. 188-96.

Ryan, M-L., (2004). *Narrative across media: The languages of storytelling* (Frontiers of narrative). Lincoln: University of Nebraska Press.

Schaeffer, P., (1966). *Traité des objets musicaux : essai interdisciplines.* Nouvelle édition. Paris: Editions du Seuil.

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

Smith, B., (1980). Narrative Versions, Narrative Theories. *Critical Inquiry, 7*(1), pp. 213-236.

Sugiyama, S. M., (2001). Narrative Theory and Function: Why Evolution Matters. *Philosophy and Literature, 25*(2), pp. 233-250.

Thoresen, L., (2012). Exosemantics analysis, analysis of music as heard. Proceedings of the Electroacoustic Music Studies (EMS)., (2012). *Meaning and Meaningfulness in Electroacoustic Music, Stockholm, June 2012 [Online]* [Viewed 12 February 2019]. Available from: http://www.ems-network.org/IMG/pdf_EMS12_thoresen.pdf.

Vande Gorne, A., (2018). *Treatise on Writing Acousmatic Music on Fixed Media.* Translated by David Vaughn. Brussels: Musiques & Recherches, 2018.

White, H., (1987). *The content of the form: Narrative discourse and historical representation* Baltimore: Johns Hopkins University Press. pp. 215n.

Wishart, T., (1996). Sound landscape. In: S. Emmerson, ed. *On sonic art.* Amsterdam: Overseas Publishers Associations. pp. 129-162.

Wishart, T., (2012). Red Bird. In: *Sound Composition.* Orpheus the Pantomime. pp. 14-31.

Wolf, W., (2017). Metamusic? Potentials and Limits of 'Metareference' in instrumental music: theoretical reflections and a case study. In: W. Bernhard, ed. *Selected Essays on Intermediality by Werner Wolf (1992–2014).* Boston: Brill, Rodopi. pp. 317 -348.

Wolf, W., (2005). Narrative and narrativity in music. In: Herman, D., Jahn, M., & Ryan, M.-L(eds.) *Routledge encyclopedia of narrative theory.* London: London : Routledge.

Young, J., (2016). Forming form. In: Emmerson, S., & Landy, L. *Expanding the horizon of electroacoustic music analysis [electronic resource]*, pp.58-78

Young, J., (2007). Reflections on sound image design in electroacoustic music. *Organised Sound, 12*(1), pp. 25-33.

Young, J., (1996). Imagining the Source: The Interplay of Realism and Abstraction in Electroacoustic Music. *Contemporary Music Review,* Vol. 15, pp. 73-93.

Young, J., (2009). Narrative, Rhetoric and the Personal: Storytelling in Acousmatic Music. Paper presented at the 2009 Electroacoustic Music Studies Conference, 'Heritage and Future'.

Discography

Åke Parmerud, (1994-95). Grain of Voices. In: *Grains* (2018). Canada: Empreintes DIGITALes.

Åke Parmerud, (2005). Dreaming in Darkness. In: *Nécropolis* (2016). Canada: Empreintes DIGITALes.

Gilles Gobeil, (2005). Ombres, Espaces, Silences. In: *Trois Songes* (2008). Canada: Empreintes DIGITALes.

Hildegard Westerkamp, (2000). Into the Labyrinth, In: *Into India* (2002). Canada: Earsay Productions.

Hildegard Westerkamp, (2002). Addenting to Sacred Matters, In: *Into India*. Canada: Earsay Productions.

John Young, (2005). Ricordiamo Forli. In: *Lieu-temps* (2017). Canada: Empreintes DIGITALes.

John Young, (2009). Lamentations. In: *Métamorphoses* 2010. Brussels: MR 2010/2011.

Luc Ferrari, (1970). Presque rien, no 1, le lever du jour au bord de la mer. In: *Luc Ferrari Presque Rien* (2008). France: INA-GRM.

Panos Amelidis, (2011). Agoras 1. Available from: Soundcloud. *Soundcloud* [viewed 10 November 2020] available at: https://soundcloud.com/panosamelides/agoras-1.

Sound of Isha, (2012). Shambho. In: *Vairagya: Bonding With Beyond* [Online]. India: Isha. Available from: Spotify.

Trevor Wishart, (1973-77). Red Bird. In: *Red Bird/Anticredos* (1992). UK: October Music.

Appendix

Technical set-up

"Moments of Liberty I - IV" were composed and are presented through an octagonically arranged 8-channel surround loudspeaker-system (see diagram below) so that the discussed spatial-qualities in 1.3 could be represented and further explored. The remaining works are reproduced and composed through a stereophonic loudspeaker-system to evoke the original presentation of the dance-performances as these were received frontally from the audience.

Numbers indicate audio output channel number in correlation with the audio files output channels

⊙ : listening point with a frontal direction
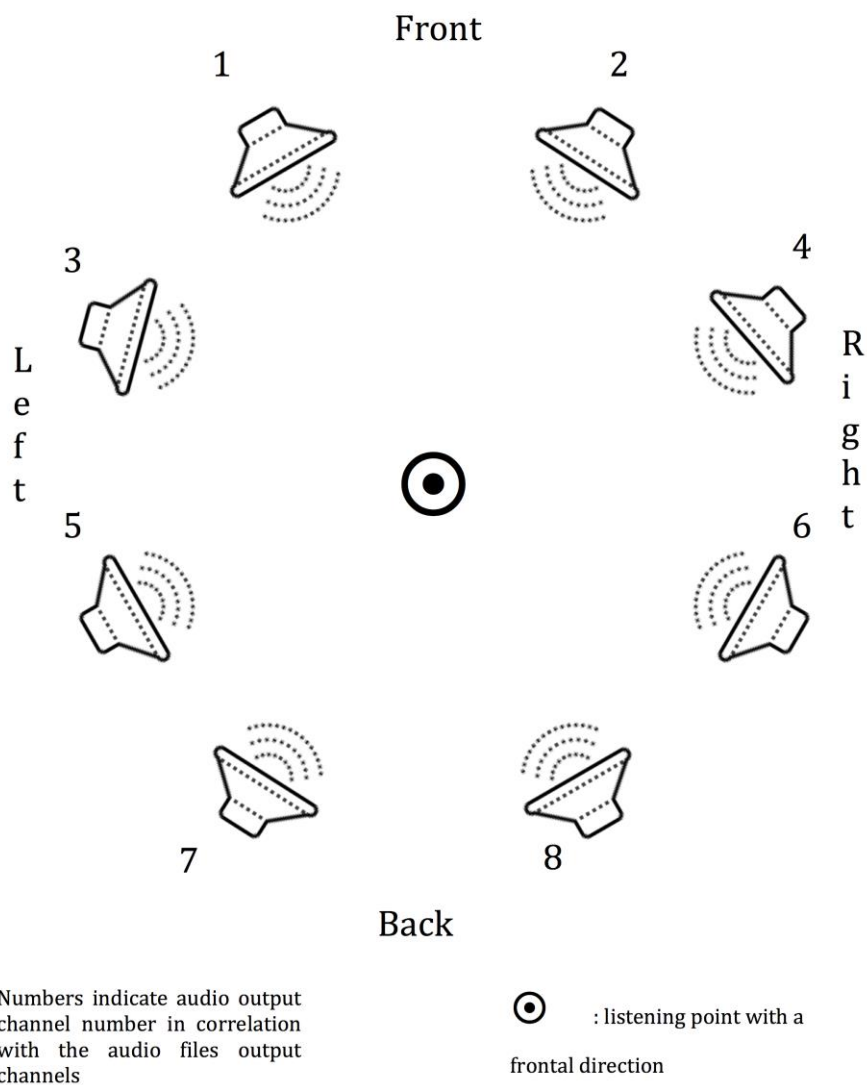
Figure 10: 8-channel surround loudspeaker-system diagram

List of compositions - Programme notes

Moments of Liberty I: Outside and Insight (2017)

Duration: 15'14"

Octophonic electroacoustic composition

Composed in USSS

Performer participated: Dimitrios Savva

Programme note: "From there to here …" Moments of Liberty as an extra musical concept stands, evolves and progresses around a human, whose existential being seeks to become and experience liberation -or what is thought to be liberation- in moments. Seeking is seen within this conceptual frame as an extremely intense and dramatic need to become liberated. A need that is a response to a to the state of being enslaved. The need and its creation also suggest that there was a moment of realisation of what the current state is, signifying that before it there was another state; that of ignorance.

Moments of Liberty I: Outside and Insight abstractly explores these stages by presenting a state of apparent calmness and tranquillity that violently and suddenly breaks, giving its place to tension and agony. This transition symbolises the realisation from the character that he is enslaved, contained and ignorant. The journey to find liberation commences from this point inside a voluminous and reverberant space. A space that symbolises the subconscious of the character, that which he entered violently after his realisation, and that which he attempts to understand.

Moments of Liberty II: Falling Within (2017)

Duration: 14'13"

Octophonic electroacoustic composition

Composed in USSS

Performers participated: Tara Baker, Dawn Webster, Madeline Shan, Machi Dimitriadou Lindahl and Dimitrios Savva

Programme note: "From here to nowhere…" The character continues his journey from where he left it in *Moments of Liberty I*. Inside the reverberant space -his subconscious- the character moves, opens doors and lights matches in an attempt to find, to understand, to perceive and to shed light into this unknown territory. Through exploration the character reveals new female characters. These symbolise deep elements of his subconscious that come to the surface to express: agony, drama, tension and the continuously present theme of being enslaved, of being contained and of seeking liberation. As the journey continues, a metaphorical upwards movement appears symbolising momentarily illusionary moments of feeling liberated. There follows a number of intense percussive movements that express the constantly failing attempts to penetrate through the state of containment. The journey concludes by creating questions of an inevitable state of containment; a continuous failing to pass through and a constant falling from any attempt to reach liberation - or what is thought to be liberation.

Moments of Liberty III: Standing Without (2018)

Duration: 10'45"

Octophonic electroacoustic composition

Composed in ERHMEE Studios

Performers participated: Alejandra Caro, Maria Jesus Intostroza, Dimitrios Savva and Fotini Dakaki [singing performance]

Programme note: "From nowhere to somewhere…" In *Moments of Liberty III* the characters continue their journey with more intense, dramatic and conscious attempts to break their state of containment. Through these dramatic attempts, the characters experience moments of liberation -or what is thought to be liberation. For the characters, these are moments of release, moments where the drama is eased and experienced from a distance. A distance that becomes central as it makes the characters wonder if the moments of liberation are experienced when they get distant from a relatively fixed system of perception, interpretation and response; a system that is no other than the self.

This self is a relatively fixed and defined system of perceiving-interpreting and responding-reacting to what has been perceived and makes the characters further wonder if the content of what they have perceived is created by the same system of self. Thinking the possibility of this proposition to be true, the characters further wonder if their dramatic experience of being enslaved, with all the agony and tragedy it includes, is a prearranged, made up and fixed

response of themselves. A proposition that further indicates that the content of this response could be a made up construct, an imaginary act of themselves. The most tragic inference of this scenario is that the idea of liberation is also an imaginary thing, a made up construct. This suggests that it is not possible for a real exit to happen since wherever the characters decide to go, the place-situation reached is a construct of the system of self. Being enslaved thus refers to a state of being enslaved to the self. Consequently, the only real exit, revealed from the moments of liberty, is the exit from the self. The greatest wonder is then created in the characters and that is, if it is possible to exist without the self.

Moments of Liberty IV: Towards the Sea (2019)

Duration: 16'48"

Octophonic electroacoustic composition

Composed in ERHMEE Studios

Performers participated: Vasiliki Makou, Dimitrios Savva

Programme note: "From somewhere to everywhere." *Moments of Liberty IV* concludes the journey by suggesting the exit of the male character from his space-place of containment and enslavement. A female character in a realistic nature-soundscape as a symbol of an existential consciousness enters the space-place of the character's containment and enslavement and through an abstracted interaction she guides him outside. This act proposes that it is unnecessary to break the containment-enslavement space-place-state. What rather seems necessary is to realise that an entrance was used, deliberately or not, to enter this space-place-state and by using the same path in the reverse direction it is possible to simply exit it.

While this narrative attempts to direct what is happening, it fails because the composition itself, in an imaginary condition, goes beyond its included characters, turning to itself in an attempt to become liberated. Based on this condition the composition is seen as an entity that attempts to break free from its predefined prearranged aesthetically and narratively driven compositional self; discarding principles of coherence, consistency, balance, meaning, structure and form causing in this way the disruption and tearing up of the narrative thread. The question is then set by asking if the previously proposed exit is the exit from one unpleasant containment-state to a different, more pleasant containment-state. If this is the case, the question continues by further asking if the only way to attain liberation is by destroying the system of perception; the self. That

which is the creator of the containment and enslavement space-place-state; that which is the creator of the drama and its resolution; that which is me and you.

Echo the nymph of reflection (2020)

Duration: 09'30"

Stereo electroacoustic composition

Composed in the composer's personal studio

Performers participated: Machi Dimitriadou Lindahl [dance] and Agnese Banti, Iliana Karaliga and Fotini Dakaki [singing performance]

Programme note: Echo is a tragic nymph. She is the nymph that was punished with the curse of not being able to speak her own words, but only being able to repeat the last words spoken by another person. This cruel punishment led to her tragic end. She lost her body and became a spirit, existing in all those places-spaces that echo our voices back.

Echo did not consider the consequences of her actions, she failed to reflect on them and, as a result, she received this cruel punishment. Is it possible to think of Echo as a symbol of a process that can lead to completion? When Narcissus asked Echo "Who are you?", he received the echo-repetition of his question. This triggered something inside him; it made him realise that he is the son of the river-nymph. What he really wanted then was to reconnect with his mother and his real nature, to become one with the source of his creation. This liberated him, but, at the same time, brought his human life to an end. The myth could be a reminder that reflection is a way to understand and realise things about ourselves. Echo is one of these reflections; she can make our voice, which is asking the question "Who are you?", return to us and ask us who we are. How do we feel when we hear our voices ask us who we are? Can this, as previously suggested, lead to an understanding and realisation, or is it also possible for it to lead to destruction? The easiest, but, also the most honest answer, is that both are possible. If both realisation and destruction are possible, then can we choose which of the two we want? If it is possible to choose, what would you choose?

Once there was a forest I (2020)

Duration: 11'31"

Stereo electroacoustic composition

Dance performance and choreography: Konstantina Skalionta

Live-electronics music performance: Dimitrios Savva

Performed in Dance House Limassol and composed in the composer's personal studio

Programme note: *Once there was a forest I* is a composition based on a sound recording of a dance with live-electronics performance. The performance was developed during a 5-month residency programme between the dancer and choreographer Konstantina Skalionta and myself as a composer and music performer. The performance abstractly explores subjects of ecological destruction in relation to the Anthropocene. The composition aims to create an acousmatic experience of the performance by creating spatial perspectives of the activity and the sound-material that is not possible to be experienced in their live presentation.

Once there was a forest II (2020)

Duration: 13'38"

Stereo electroacoustic composition

Dance performance and choreography: Konstantina Skalionta

Live-electronics music performance: Dimitrios Savva

Performed in Dance House Limassol and composed in the composer's personal studio

Programme note: *Once there was a forest II* as *Once there was a forest I* is based on a multi-perspective sound recording of the second complete dance with live-electronics performance that was developed during a 5-month residency programme between the dancer and choreographer Konstantina Skalionta and myself as a composer and music-performer. While narratively the performance still abstractly explores subjects of ecological destruction in relation to the Anthropocene, practically, it structurally discards music and dance interaction and sets separately the first part to be only the music performance and the second part to be only the dance performance. The composition, as *Once there was a forest I,* aims to create an acousmatic

experience of the performance by creating spatial perspectives of the activity and the sound-material that is not possible to be experienced in their live presentation.

Performance Scores

Audio files that accompany the performance-scores below are located in the folder *Sound_examples* and in the folder of each performance-score they are associated with. Audio files are named with *example number*; associated *performance-score*, *location and/or action* when necessary, and *recording format:* binaural, stereo and 8-channel (including its stereo and binaural reductions).

Moments of Liberty I – Performance-scores: 1 - 3

- ## Performance-score 1

Performance-score 1 is based on the character's psychological state of ignorance as described in the *Moments of Liberty I* programme notes. The idea in regard to this particular state was to introduce the character within an internal place. A place that evokes reality; the actions of everyday life that suggest something internal - a confined and contained place symbolising the limits and boundaries of the self. Within this place, the character would be heard walking, breathing and opening and closing doors. The walking and breathing symbolically refer to an entity that moves, that lives and exists, and that is active and present. The doors refer to the idea of entering and exiting the same or different places symbolising an attempt to explore, to understand, to change locations -literally and metaphorically-, but also suggesting repetition and return[19].

Performance-score 1

Walk from one room to the other; open the door letting it close by itself. Walk into the room you have just entered and then exit the room by following the same procedure.

During your performance, walk and open the doors normally, like in everyday life situations; do this series of actions multiple times:

in some takes be neutral and spontaneous giving the impression that this is a known place

in some other takes do these actions in a rush and anxiously give the impression that you are not familiar with this space.

---

[19] It should be noted at this point that the symbolisms and metaphors in performance-scores were used as motivations and reasons for creating the particular performance directions and are not expected to be perceived directly by the listeners.

Examples 1 - 6 of performance-score 1 are recording-extracts executed by myself.

- # Performance-score 2

Performance-score 2 deals with the character's psychological state of ignorance -from a different perspective than in performance-score 1- and his realisation of being contained and enslaved. Symbolically and performatively these states are expressed through the performer's interaction with water in a bowl. The performer, by taking water as a symbol of purity, life, existence, flow and harmony, is touching, playing and acting upon water producing delicate dripping and pouring sounds. The activity symbolically expresses a pleasant playing of life and existence. At the same time the activity suggests that the performer ignores the fact that as water is contained and bounded in the bowl, so is life and his interaction with it. As soon as the character realises this, he violently and aggressively splashes water outside the bowl in a desperate and dramatic attempt to set it free from its containment.

Performance-score 2

Place the water-filled bowl on the floor in front of you and start playing with it in a delicate gentle way until you gradually become aggressive and violent with it.	During your performance, think of the water as something sacred, treat it gently like you are conducting and experiencing a ritual; then think of the water within the bowl as the symbol of life being contained; let this make you realise that you are also contained and therefore enslaved; respond to this realisation dramatically, madly and aggressively.	While performing, experiment sonically within the two states of water-play, aiming to produce and discover various sounds and multiple phrases.

Examples 7 - 10 of performance-score 2 are recording extracts executed by myself.

- # Performance-score 3

Performance-score 3 directs the performer to explore and understand his state of being contained and enslaved by entering and exploring his subconscious. This symbolic act is performatively expressed through the dramatic walk of the performer down a stairway, his entrance into the basement and his actions of dramatically using a lantern, striking matches and lighting a candle. The actions symbolically signify the agony of the character to enter, explore and 'shed light' into the unknown territory of his subconscious. Through this process, the

character is gradually getting familiarised with the unknown territory and his agony turns into calmness.

Performance-score 3

Take the candle out of the lantern, open the matchbox, take a match and strike it to the matchbox, light the candle and place it with the lantern. Open the door -in some takes- and walk down the stairway. Reach its end and enter the basement. Walk into the basement and then exit following the reverse procedure.	Do multiple takes of these series of actions:	Explore the basement:
	do some dramatically, in fear, agony and stress; make spasmodic moves, breath heavily and walk fast	sonically experiment with objects found in it that can produce sound
	do some by feeling calm, expressing that the state of fear has passed and now what is left is your journey to find the exit and thus liberation.	improvise a chant in a sacred and ritualistic state of mind aiming to express your feelings of being in the particular space. Do this both spontaneously - without the dramatic conditions- and dramatically as a response to the space and its symbolism.

Examples 11- 22 of performance-score 3 are recording extracts executed by myself. Examples 11-15 are extracts of the performance-score directing myself to walk towards and outside the basement in a normal and dramatic psychological charge. In this specific setting an ambisonic microphone was placed inside the basement to capture the walking of the performer from outside and towards and inside the basement. Example 16 is an extract of the performance when experimenting sonically with objects found in the basement. Example 17 is an extract of cyclical walking around the ambisonic microphone. Example 18 in an extract of dramatic breathing and example 19 in an extract of singing a chant; both acts took place inside the basement. Examples 20-22 are close mic recordings of opening the lantern, striking a match and lighting the candle.

Moments of Liberty II – Performance-scores: 4 - 5

- # Performance-score 4

Performance-score 4 is based on the idea of introducing the female characters and was described in the programme notes for *Moments of Liberty II*. The female characters symbolise deep elements of the male's subconscious. One of the two female characters represents the system of self and the other represents the existence that is free from this system. The two

characters are found in an indoor place -symbolism of the containment space- but without being able to sense each other, like being in different perceptive dimensions. Gradually as they explore the space, they start sensing each other's presence. This sense increases significantly and they become dramatically anxious of what they sense to be revealed. After a climactic process of seeking this revelation, they crash into each other. This becomes the moment of realisation that they are being trapped and that they are in a state of containment. The self realises the idea of existence and existence realises the idea of being contained by the creation of the self.

Performance-score 4

Slowly move within space and explore it. Perform with the mind-set that you do not sense each other. This changes when your movement and exploration become gradually more intense and you start sensing each other. As you start walking clockwise-cyclically around the perspective point -microphone-, you seek to meet very intensively. This becomes faster and faster until the self turns anticlockwise and crashes into existence.	During your performance, feel neutral at the beginning and gradually show the feeling of agony when you realise the presence of an entity. Build up tension as you become anxious to meet the entity you sense is present. Gradually increase your movements from slow to fast and spasmodic. Continue this as much as needed to reach a state where you will breathe heavily from exhaustion. Gradually establish a climax that will peak with your crashing.	While performing, produce sounds in various ways and with various objects; think of percussiveness, friction and breath; use your body, your skin, your clothes and the floor; think of a variety of gestures: soft, hard, gradual, quiet or loud; and think a variety of pace of alternation, slow, fast, spasmodic; increase of pace and the ideas of having pauses with a variety of lengths, or no pauses between actions.

Examples 23 - 26 of performance-score 4 are recording extracts executed by Tara Baker and Dawn Webster.

• Performance-score 5

Performance-score 5 is based on the idea of containment, its realisation and the constant failure to break free from it. The idea is now executed by a female character who realises that the place she has existed in for so long is the place of her containment. The character responds dramatically to this realisation by desperately attempting to break free and become liberated from the specific place and its symbolism. In her attempts, the character constantly falls and gets back up only to fall again, expressing continuous failing attempts to become liberated.

Explore the space; start gradually realising that this place in which you have been since the time you remember yourself, is the place of your containment. Respond to this accordingly and dramatically. Feeling that you have been trapped into this place-state, attempt to stand and then fall. Repeat this process as many times as you can.	During your performance feel neutral at the beginning; take your time; start realising that you are now in a place that has always been the place of your containment. In response to this, create and build a continuously evolving tension; bring the tension to the maximum by forming a climax; in its peak, fall. When you try to get back up, as you are extremely exhausted, you feel like something is forcefully pulling you down. As a result, you struggle to stand up and once you get back on your feet you won't be able to deal with this force and you will fall again. You repeat this until you do not have the strength to stand up again.	While performing, produce sounds in various ways and with various objects; think of percussiveness, friction and breath; use your body, your skin, your clothes and the floor; think of a variety of gestures: soft, hard, gradual, quiet or loud; and think a variety of pace of alternation, slow, fast, spasmodic; increase of pace and the ideas of having pauses with a variety of lengths, or no pauses between actions.

Examples 27 - 29 of performance score 5 are recording extracts executed by Madeline Shan.

Moments of Liberty III – Performance-scores: 6-9

• Performance-score 6

Performance-score 6 is based on the continuation of ideas from performance score 2. The violent and aggressive play with water -as the character responds to the realisation that the water is contained (signifying that life is being contained)- is completed with the action of breaking the water container (bowl). This symbolically stands for breaking that which restrictively contains life. An action that as thought from the character could lead to liberation - or what is thought to be liberation.

Performance-score 6

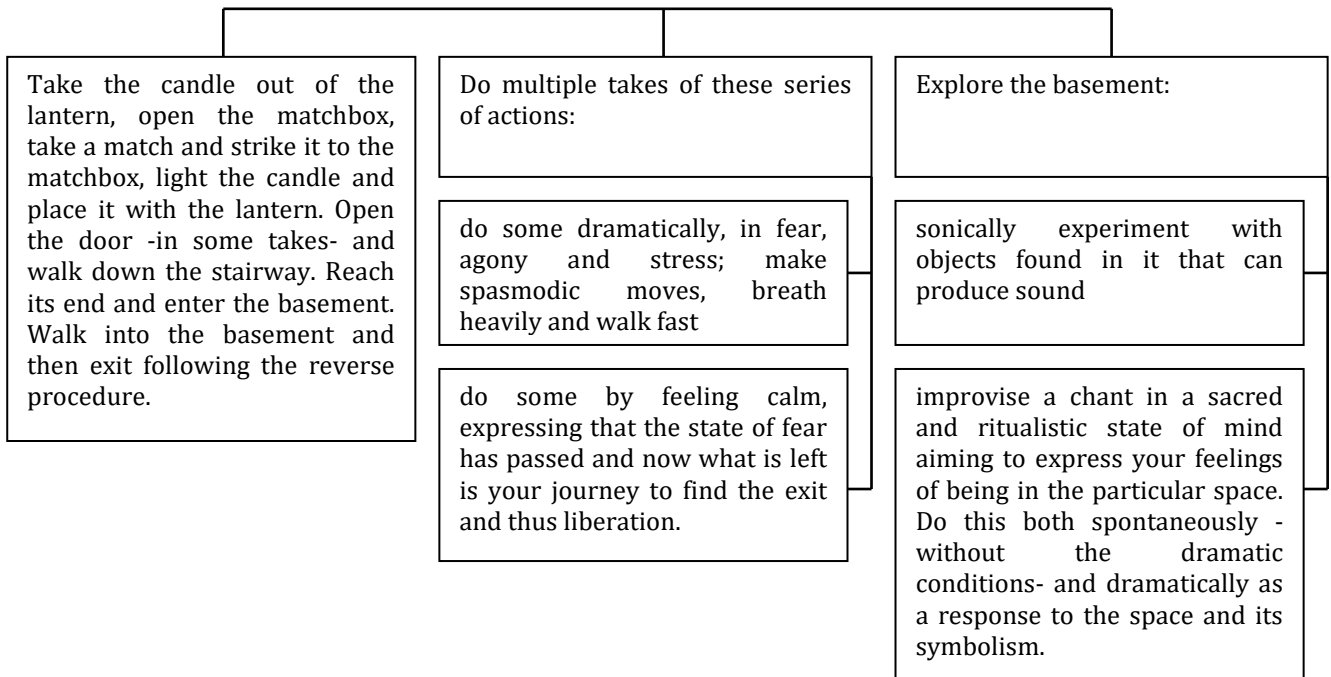| After you have completely expressed your anger, in response to the realisation of your containment, pause for a while; think that now -after the previous tension- you have decided that it is time for the container to break and the water to be set free. Stand up with certainty and concentration; take the time you need to feel that your following gesture will bring the change you wanted. As soon as you are ready, with determinate force, throw the bowl on the floor. |
| --- |

Example 30 of performance-score 6 are recording extracts executed by myself.

- ## Performance-score 7

Performance-score 7 concerns the male character's psychological state of exhaustion. Expressed sonically with his breathing, the state is seen to have resulted from the character's long journey to attain liberation. The performance-execution of the state was driven from the idea that the character is dissolving, giving in and letting go.

Performance-score 7

Breathe heavily expressing your exhaustion from the process of struggling to find liberation, feel like you do not have the strength to breathe anymore and that you are very close to not being able to breathe anymore.	Do multiple takes and discover various breathing sounds that could be performed quietly and whispery, with the least gestural energy possible and articulated with a slow and heavy pace.

Examples 31 - 34 of performance-score 7 are recording extracts executed by myself.

- ## Performance-score 8

Performance-score 8 is based on the same performance ideas of containment as in performance-score 5. The characters realise once again that they are contained and trapped within the space they are currently in, and dramatically attempt to break free from it. In comparison with performance-score 5, this score asks the performers to repeatedly fall on the floor and directs them to increase the intensity of their actions when attempting to break free.

Performance-score 8

Explore the space-place you have been in all along. Start realising that you are contained and trapped inside this place and attempt in a dramatic way to break free. Through this attempt you soon realise that the boundaries of your containment place are unbreakable. You do not give in, you insist, you continue trying, increasing tension, hitting the boundaries harder and faster, creating explosive climactic moments but without any result.	In your performance, move slowly at the beginning and take the time to discover the place. Driven from a need to understand, you start touching all kinds of available surfaces: the floor, the walls and your body. As you gradually realise your confinement you start hitting them increasingly harder and faster. Progressively as you understand that it is not possible to break the barriers of your containment, you become desperate, you feel suffocated and you are drowning in your desperation. Madly and violently you try harder and harder to break what is unbreakable.	While performing, produce sounds in various ways and with various objects; think of percussiveness, friction and breath; use your body, your skin, your clothes and the floor; think of a variety of gestures: soft, hard, gradual, quiet or loud; and think a variety of pace of alternation, slow, fast, spasmodic; increase of pace and the ideas of having pauses with a variety of lengths, or no pauses between actions.

Example 35 of performance-score 8 is a complete, unedited recording of the score's execution by Alejandra Caro and Maria Jesus Intostroza. Examples 36 - 39 are short recording extracts of different executions of the same score.

• Performance-score 9

Performance-score 9 is based on the performance idea of symbolic callings from external entities towards the characters. Performed by female singing voices the calling intends to evoke a state of devoutness and spirituality aiming to:

1. psychologically support the characters to continue their journey

2. guide them to find the exit from their place of confinement

3. make them realise that their containment is a construction of their own making.

Performance-score 9

Sing like you are a spiritual, ethereal entity. Through your singing, attempt to guide and support the characters to continue their journey in finding a way out of their drama.	Listen to a specific performance of a particular Sound of Isha's mantra Shambho (2012), try to be influenced spiritually and melodically. Then listen to this specific part of the composition and both while listening and after listening, by thinking of the specific performance-score, the mantra and the harmonic content of the specific part, do many singing improvisations.

Examples 40 - 43 of performance-score 9 are recording extracts executed by Fotini Diakaki.

Moments of Liberty IV - Performance-scores: 10-12

Performances for this specific composition took place in the old fortress of Corfu, Greece. Some of the performances were executed indoors, in a Venetian watchtower of the fortress and some others were executed for the first time in this series of compositions, outdoors, in the surrounding landscape of the watchtower.

- ## Performance-score 10

Performance-score 10, based on the specific recording location, concerns the return of the male character in the aforementioned watchtower. Chronologically, the character reappears after the closing of the previous composition's performative action, where the water-containing object (the bowl) was thrown on the floor and the water was set free from its containment. The actions, as previously discussed, stand symbolically for breaking the containment of life (water). This act brings the character in this composition to a new more realistic space (due to the quiet distant ambience of an outside soundscape). The space, due to the particular soundscape, along with the discreet activity of the character, symbolically suggests the presence of the character closer to a place that is outside the boundaries of his containment.

Performance-score 10

> Touch the wall like you have woken up from an illusion, walk into the room and grope the wall's surface as you are exploring its size and its geometry. Do all these actions gently, listening to the outside soundscape. Now you know that you are closer to the outside world.

Example 44 of performance-score 10 are recording extracts executed by myself.

- ## Performance-score 11

Performance-score 11 is based on the appearance of a female character that has both the symbolic role of the female characters of the two previous compositions and the symbolic role of the female singing voices that appeared in *Moments of Liberty III*. The female character stands as an inner consciousness, as a reflection of the self and as an external entity. All these symbolisms express the agony of containment but at the same time express a voice of consciousness that attempts to convince the male character to leave the room of his containment. The symbolism of the external world, the outside place of containment, is expressed through the presence of the female character placed at the landscape outside the aforementioned room. The symbolism that

expresses the outside comes through the female character inside the room to find and meet the male character. She stands on the opposite side of the wall and she attempts to communicate through the wall by gently acting upon it. Then together, they start rubbing the wall, hitting it with rocks or with their hands, expressing the agony of containment and the drama of the unbroken, impenetrable state of containment. This drama and agony is resolved when the female character walks parallel to the wall, and draws a line with a rock as a trace of her exit from the room. With this action she attempts to reveal to the male character that what needs to be done is just to exit the room. The male character after a second climactic attempt to break the unbreakable wall, follows her actions. As he leaves, he uses a rock to draw a line on the already drawn line from the female character. Once the character is outside, he walks holding the rock up until the moment that he stops to throw the rock to the ground. This action symbolises the realisation of the character that the room is a construct of his own making and that the rocks are the materials, the thoughts, the ideas, the beliefs, the preoccupations and the fears with which he builds the place of his containment.

Performance-score 11

(Act 1) - [female character] Walk slowly and peacefully, with a clear, determined walking pace. When you reach the entrance of the room, enter determinedly with the feeling that this is what you are naturally meant to be doing.	(Act 2) - [female and male character] Both start touching the wall gently, hitting and rubbing it lightly. Carefully listen to each other's actions. When you feel like it, attempt to communicate and sonically interact. When you do not feel like it, keep listening but act independently. Gradually become more aggressive and violent with your gestures and increase the pace of your actions. Express the agony of being contained and repressed. Show your desperation of realising that the wall that contains you is unbreakable. Continue acting climatically and reach a moment with the highest tension possible. Repeat this process as many times as you feel like it.	(Act 3) - [female character] Think that you are now the external and internal consciousness, the entity that will reveal the truth. You will show that what needs to be done is to exit the place of containment. In this psychological state take a rock and, while walking, draw a line on the wall and then exit the room. When you exit, continue walking, and stop whenever you feel like it. Throw the rock you used to draw on the wall.	(Act 4) - [male character] Make another climactic attempt to break the unbreakable wall using only your bare hands. As this will not have any results, follow the same procedure as the female character and draw on the wall on your way out. When you exit, keep the rock. Once you are some distance from the room, when you feel like it, throw the rock on the ground.

Examples 45 - 52 of performance-score 11 are recording extracts executed by Vasiliki Makou and myself. Specifically, examples 45A and 45B are extracts based on act 1; examples 46 - 49 are extracts based on act 2; example 50A, based on act 3, is a full performance of drawing a line on the wall using a rock; example 50B is also a full performance of drawing on the wall but now includes the characters' exit from the room and the action of throwing the rock; examples 51 - 52 are extracts based on act 4.

- Performance-score 12

Performance-score 12 is based on the state of containment and the way this is created. The score asks the male character to gather rocks within the room; to pick them or drag them, and to then put them on top of each other in an attempt to build a wall. He then constantly pushes the rocks making them fall. He does this repeatedly; he builds the wall and then breaks it until he is completely exhausted. Symbolically, the activity attempts to make a statement that the character constantly and repetitively builds his place of containment by himself, destroying it to then create it again.

Performance-score 12

Slowly start picking up rocks from any place within the room and put them on top of each other in the centre of the room. Do this with the intention of building a wall. As soon as a small wall is starting to take shape, push the rocks to break it. Repeat this process increasing tension, agony and pace. Do these cycles of building and breaking the wall until you stop from exhaustion.

Examples 53 of performance-score 12 are recording extracts executed by myself

Echo the Nymph of Reflection – Performance-score 13

- Performance-score 13

- Performance-score 13 is based on the myth of the nymph Echo. It deals with the dramatic reaction of the nymph when experiencing three tragic events. The first, after having been punished by the goddess Hera, was not being able to speak her own words but only being able to repeat the last words spoken by another person. The second was her encounter with Narcissus, with whom she was in love. When asked by Narcissus "who are you?", as she was not able to reply, she repeated the question addressing it to him. The repetition made Narcissus laugh and completely reject Echo. The third tragic event was the response of Narcissus to the question "who are you?" The question triggered something inside him, making him realise that he is the son of the river-nymph. Wanting to reconnect with his

mother and his real nature he fell into the river, bringing his human life to an end. Echo's response to these tragic events was to run into the forest in despair and agony. This gradually led her to lose her body, thus becoming a spirit.

Performance-score 13

Run on the performance-stage expressing your emotions of despair and agony as a response to the tragic events you have experienced.	Explore space through your running in terms of distance, location and movement, direction and speed in regard to the receptive point (microphone-recording point); think of this as an expression tool.	Explore the flapping sounds your trench coat produces and use them as expressive gestures in your running performances.

Further to these directions, the performance-stage was partly covered with bougainvillea dry flowers to narratively suggest an outdoor space and to sonically provide a variation on the sounds produced from the running activity.

Examples 54 - 58 of performance-score 13 are recording extracts executed by Machi Dimitriadou Lindahl.

- Performance-score 14

Once there was a forest I

Performance-score 14

Dance performance-score	Choreographer's direction for music	Music performance-score

Section 1   *approximately 7 to 8 minutes*

Start inside the plastic cover.	Let the air move you and the plastic.	You become a flag in the air.	You become water (move with fluidity).	You become fire (move with intensity).	Move until you are outside the plastic cover.

Remembering there was once a forest.				Remembering its violent destruction	

Quietly produce wind sounds by blowing into the whistle. Do not use amplification.	Gradually start amplifying the sound you produce and start producing pitch sounds with the whistle.	Start introducing live-processing effects on the sounds you produce until you activate them all.	Produce breathing sounds along with the whistle wind and pitch sounds.	Start a climax by: (1) increasing volume, (2) by creating dense noise-based textures and (3) by producing scream sounds through the whistle.	Evolve the climax and bring it to its peak with an upward spectral movement. After the peak leave the remaining sounds to gradually fade out.

Section 2   *approximately 7 to 8 minutes*

Breathe freely – hold a pebble / stone and place it on your chest -.	"Awake" your heartbeat.	Leave the pebble behind.	Touch the tree branches.	Become a tree – stand, travel in the space, move slowly, spin and twirl.	Let the tree branches fall from your hands.

Think of a ritual where you moan for the lost forest. At the same time you embrace life, hoping for a change.					

Stay in silence.	Sing the repetitive melodic phrase using the utterance "he-he-he". Apply stretching-morphing live processing effect on the sounds produced. Along with singing, start rhythmically striking the singing bowl.	Start a slight upward pitch-movement processing of the sounds you produce. Create a climax where singing becomes tragic and stretching-processing intense. After the peak, continue singing and striking the singing bowl in lower volume and then gradually fade out.

Examples 59 and 60 of performance-score 14 are recording extracts that resulted from the execution of the score by Konstantina Skalionta and myself. Specifically, example 59, presents a phrase from the composition (01:28-02:01) and then shows successively the different stems (simultaneous recordings of this phrase from different locations) mixed to create it. The stems are presented as follows: (1) binaural recording, microphones attached on the dancer (d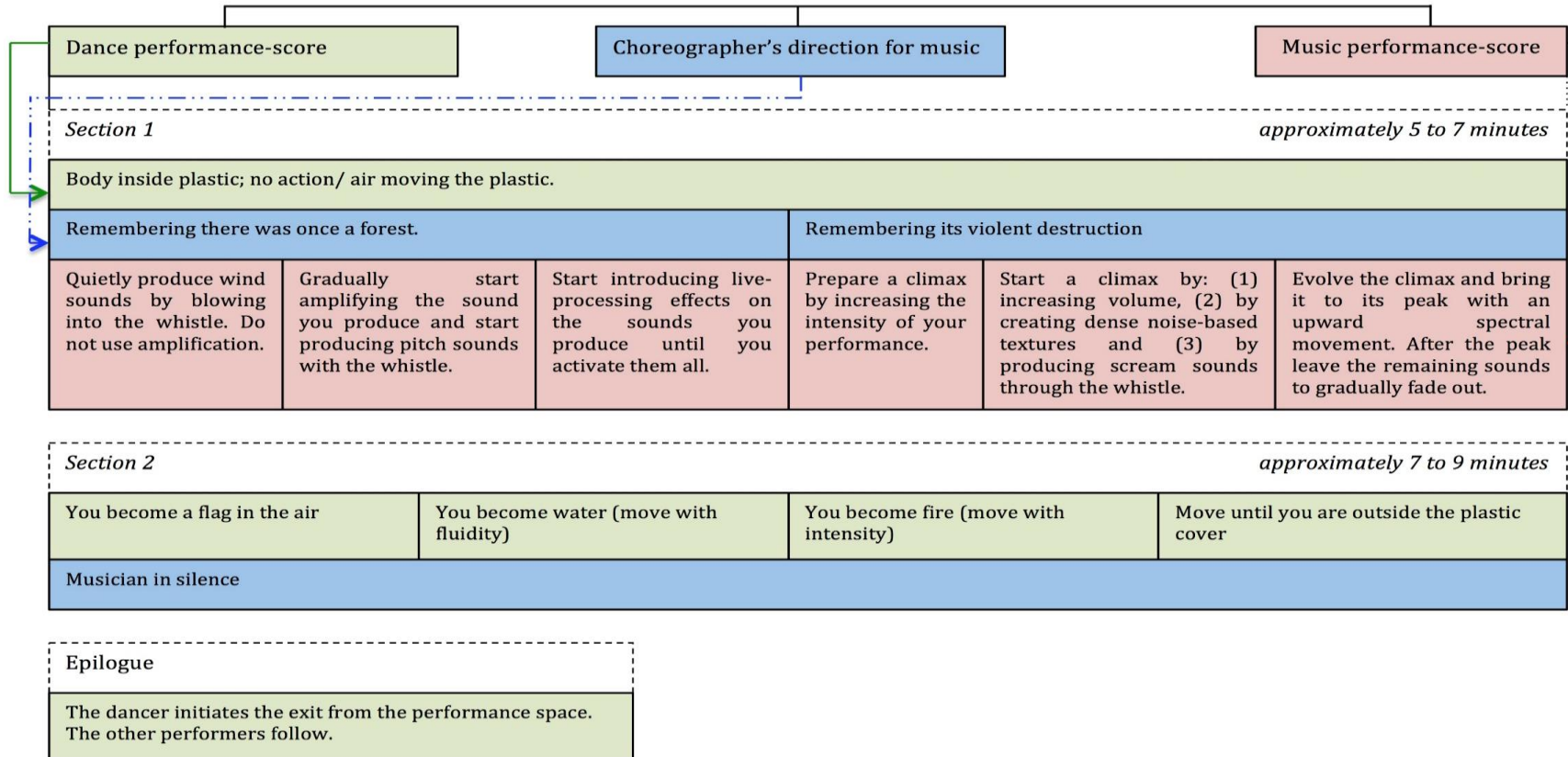ancing underneath the nylon sheet); (2) stereo ambience recording from the audience seating location; (3) the internal (DAW) recording of the live-electronics performance as presented live; (4) internal unprocessed recording of the sound produced by the music performer (voice and whistle); (5) internal recording of the granulation processing of the music performance and (6) internal recording of the stretching-morphing processing of the music performance.

Similarly, example 60, presents a phrase from the composition (06:59-07:36) and then shows successively the different stems mixed to create it. The stems are presented as follows: (1) binaural recording, microphones attached on the dancer (hitting chest with a pebble); (2) stereo ambience recording from the audience seating location; (3) the internal (DAW) recording of the live-electronics performance as presented live; (4) internal unprocessed recording of the sound produced by the music performer (singing) and (5) internal recording of the stretching-morphing processing of the music performance.

- Performance-score 15

Once there was a forest II

Performance-score 15

Dance performance-score	Choreographer's direction for music	Music performance-score

Section 1   *approximately 5 to 7 minutes*

Body inside plastic; no action/ air moving the plastic.

Remembering there was once a forest.			Remembering its violent destruction		
Quietly produce wind sounds by blowing into the whistle. Do not use amplification.	Gradually start amplifying the sound you produce and start producing pitch sounds with the whistle.	Start introducing live-processing effects on the sounds you produce until you activate them all.	Prepare a climax by increasing the intensity of your performance.	Start a climax by: (1) increasing volume, (2) by creating dense noise-based textures and (3) by producing scream sounds through the whistle.	Evolve the climax and bring it to its peak with an upward spectral movement. After the peak leave the remaining sounds to gradually fade out.

Section 2   *approximately 7 to 9 minutes*

You become a flag in the air	You become water (move with fluidity)	You become fire (move with intensity)	Move until you are outside the plastic cover

Musician in silence

Epilogue

The dancer initiates the exit from the performance space.
The other performers follow.

Examples 61 and 62 of performance-score 15 are recording extracts that resulted from the execution of the score by Konstantina Skalionta and myself. Specifically, example 61, presents a phrase from the composition (04:16-04:40) and then shows successively the different stems mixed to create it. The stems are presented as follows: (1) stereo ambience recording from the audience seating location; (2) the internal (DAW) recording of the live-electronics performance as presented live; (3) internal unprocessed recording of the sound produced by the music performer (voice); (4) internal recording of the granulation processing of the music performance.

Similarly, example 62, presents a phrase from the composition (08:43-09:33) and then shows successively the different stems mixed to create it. The stems are presented as follows: (1) binaural recording, microphones attached on the dancer dancing underneath the nylon sheet); (2) stereo ambience recording from the audience seating location; (3) the comb filtering processing applied on the recording during the compositional process.

Music Publications

- Electroacoustic music composition *Echo the nymph of reflection* published in the CD: CIME 2020, Various Artists, Audiomat, 2020.

- Electroacoustic music composition *Echo the nymph of reflection* published in the CD: Metamorphoses 2020, 11th Biennial Competition, Various Artists, Musiques & Researches, MR 2019, 2020.

- Electroacoustic music composition *Moments of Liberty II: Falling Within* published in the CD: Metamorphoses 2018, 10th Biennial Competition, Various Artists, Musiques & Researches, MR 2018, 2019.

Honours and Awards

- Finalist in the International Electroacoustic Music Competition Luigi Russolo 2020/2021, Faverges, France, with the composition *Echo the nymph of reflection.*

- Represented BEAN (British ElectroAcoustic Network) in CIME (International Confederation of Electroacoustic Music) 38th online festival with the composition *Echo the nymph of reflection*.

- Finalist in the 11th biennial International Electroacoustic Music Competition Metamorphose 2020, Brussels, Belgium, with the composition *Echo the nymph of reflection.*

- 3rd prize (out of 241 compositions submitted) in the Iannis Xenakis International Electroacoustic Composition, Thessaloniki, Greece, for the composition *Moments of Liberty II: Falling Within.*

- 4th place in SIME 2019 International Electroacoustic Music Competition, Lille, France, for the composition *Moments of Liberty II: Falling Within.*

- Received a "mention" from the 10th biennial International Electroacoustic Music Competition Metamorphose 2018, Brussels, Belgium, for the composition *Moments of Liberty II: Falling Within.*

- Received the 'Petrie Watson Exhibition Grant' to complete a composition project, to make a research presentation and to curate and perform a concert with works from USSS (University

of Sheffield Sound Studios)-based composers as part of the 11th Audiovisual Art Festival organised by the Ionian University.

- Received the full University of Sheffield Faculty Scholarship to complete my PhD research.

Acknowledgments

I would like to express my gratitude to my supervisors Adrian Moore and Adam Stanovic for their substantial support during the years of my doctoral studies. I would also like to deeply thank all the artists I have collaborated with (Tara Baker, Down Webster, Madeline Shan, Alejandra Caro, Maria Jesus Intostroza, Vasiliki Makou, Fotini Dakaki Machi Dimitriadou Lindahl, Konstantina Skalionta, Agnese Banti and Iliana Karaliga) to realise the compositions of this research. Finally, I would like to thank my friends and family for their support and the Music Departments of both the University of Sheffield and the Ionian University for providing me with the necessary infrastructure to complete this research.