

Reworking the Sensible in the Age of Digital Musics

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This submission comprises of a folio of creative work. It includes two DVDs, two CDs, musical
scores, accompanying materials and a written commentary.

I want to thank my mommy! and my daddy! and my little friends and colleges and my supervisors
and my and my and my...

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Chapter 1

Preface

What do I mean by those funny terms and how in a very general way they relate to my work. A little introduction to my work before PhD. Concerns at the begining of the PhD an how they evolved in time.

Chapter 2

Introduction

2.1 Ranciere and the reevaluation of the notion of modernity

Jaques Rancière in his book *The Politics of Aesthetics* examines the relationship between the concept of modernity and the break from figurative representation in the visual arts. He argues that the departure from representation of images through figurative means is often confused with aesthetic modernity, which is specific to a single regime of the arts. That is, “a specific type of connection between ways of producing works of art or developing practices, forms of visibility that disclose them, and ways of conceptualizing the former and the later”.¹ If we were to think about this confusion that is associated with the concept of *modernism* in the realm of music, some questions come into mind: Does this confusion apply to the musical domain and if so how does it manifest itself? Can we talk about representation in music and if so within what context? Could we compare the breaking from figurative representation to the departure from tonality at the beginning of the twentieth century? Has ‘the musician’ gone through a corresponding redefinition of *what is expected* from him by the community the same way as ‘the fine artist’ has through the process of modernisation?

In the following discussion, I will attempt to read Rancière’s text as applied to music not only with the purpose of tracing parallels and discrepancies between music and the other arts, but to try to find out something particular about music itself. Also, I will venture to examine the limitations of the notion of modernity within music and its relationship to the wider modernist political project.

¹Jaques Rancière, ‘The Distribution of the Sensible’, in *The Politics of Aesthetics*, Trans. Gabriel Rockhill, London: Continuum, 2004, p. 20.

2.1.1 The distribution of the sensible

Before starting our discussion on the notion of modernity and its political and aesthetic consequences, first I will try to examine the relationship of aesthetics and politics in the work of Rancière. According to Rancière, the political and the aesthetic spheres are intrinsically linked through what he calls ‘The distribution of the sensible’.

I call the distribution of the sensible the system of self-evident facts of sense perception that simultaneously discloses the existence of something in common and the delimitations that define the respective parts and positions within it. A distribution of the sensible therefore establishes at one and the same time something common that is shared and exclusive parts. This apportionment of parts and positions is based on a distribution of spaces, times, and forms of activity that determines the very manner in which something in common lends itself to participation and in what way various individuals have a part in this distribution.²

It is precisely this system of division of spaces, times and forms of activity that defines aesthetics and is also at the heart of politics. Therefore, aesthetics takes part in the political act of governing and in determining who the rulers are and how they come to power; as well as how the commons are distributed within a community. Here though, Rancière points out, that in order to make the relationship between politics and aesthetics, one must understand aesthetics “in a Kantian sense – re-examined perhaps by Foucault – as the system of *a priori* forms determining what presents itself to sense experience.”³ Aesthetics therefore should be seen here beyond the conventional view as strictly belonging to the confines of art and should not be seen merely as the ‘aesthetic practices’ manifested in different artistic disciplines. In contrast, in order to think of aesthetics in a context that could be applied outside of the arts, it requires its abstraction as modes of action, production, perception and thought; a system of “delimitation of spaces and times, of the visible and the invisible, of speech and noise, that simultaneously determines the place and the stakes of politics as a form of experience.”⁴ Therefore, through the work of Rancière, it is possible to think of aesthetics in politics with a broader understanding of aesthetics as the distribution of the sensible. Moreover, for Rancière, ‘aesthetic practices’ that disclose visibility in artistic practices reveal ‘ways of doing and making’ that exist and have visibility within the community. There are different manifestations of this practices that confine an aesthetic distribution.

²Ibid., p. 12.

³Ibid., p. 13.

⁴Ibid.

This forms define the way in which works of art or performances are ‘involved in politics’, whatever may otherwise be the guiding intentions, artists’ social modes of integration, or the manner in which artistic forms reflect social structures or movements... In this way, a sensible politiccity exists that is immediately attributed to the major forms of aesthetic distribution such as theater, the page, or the chorus. There ‘politics’ obey their own proper logic, and they offer their services in very different contexts and time periods.⁵

Consequently, it could be argued that there is an inherent political core in the way this artistic forms are constituted and within them lays a political project that renders the distribution of what is known to the community, the way it is organized and what remains visible or invisible.

2.1.2 The regimes of art

In order to understand Rancière’s reevaluation of the notion of modernity one must first understand what he calls the three ‘regimes of art’, which are modes of identification and articulation between ‘ways of doing and making’ and forms of visibility, as well as their conceptualization. In other words, the ‘regimes of art’ simply distinguish different ways of making and thinking about ‘art’ and how it is perceived.

The ethical regime of images and the poetic regime of art

To begin with, Rancière defines the *ethical regime of images* as the pragmatic Platonic notion of the use and distribution of images in relationship to the community’s *ethos*. This regime therefore uses images as ‘true’ imitations of the original and are distributed and valued by their purpose of educating the community in accordance to it’s social order. Therefore, within this regime ‘art’ is not evaluated by qualities within itself but by their purpose in the community. He goes on to define a *poetic regime of art* (also referred to as *representative regime of art*) as that which breaks away from the *ethical regime of images* and values the arts in terms of their own *substance*.

I call this regime *poetic* in the sense that it identifies the arts – what the Classical Age would later call the ‘fine arts’ – within a classification of ‘ways of doing and making’, and it consequently defines proper ‘ways of doing and making’ as well as means of assessing imitations. I call it *representative* insofar as it is the notion of representation or *mimēsis* that organizes these ways of doing, making, seeing and judging. Once again, however, *mimēsis* is not the law that brings the arts under the yoke of resemblance. It is first of all

⁵Ibid., pp. 14-15.

a fold in the distribution of ‘ways of doing and making’ as well as in social occupations, a fold that renders the arts visible. It is not an artistic process but a regime of visibility regarding the arts.⁶

Here, we come to the first deadlock in reading Rancière’s notion of the ‘regimes of art’ as applied to music. How are we to understand the difference between the *ethical regime of images* and the *representative regime of art* outside the domain of the visual and fine arts? First, we should understand that music not only has different social functions and visibility, but within its unique organization it has particular ‘ways of doing and making’ that are specific to itself. Even though music occupies a different and particular position in the ways of distributing the sensible, I will continue to argue that we can still refer to the *ethical* and the *poetic* regimes in music.

Following Rancière categorization, I will refer to music within the *ethical regime* as music that is made, heard and judged for its purpose within the community. By this, I mean music that is not assessed by its own qualities – or as Rancière would say ‘by its own *substance*’ – but by the purpose it performs within the community. Examples of this in the western tradition would include church, court and military music to mention just a few. It is easy to find music that falls within the *ethical regime* in other cultures where in some cases music is not even differentiated from other disciplines, like dance or storytelling, and is performed (in some cultures everyone partakes in music-making) and valued by members of the group by its communal and ceremonial purposes (celebration, mourning, war, etc). Of course, we can still find many examples of the *ethical regime* today in music for theater, dance, television, films and religious purposes. I am also of the opinion that a large quantity of Pop Music is also not appreciated by its own attributes but is judged on the bases of making profit within a consumer society (selling records, tickets and other merchandize). That said, I want to make clear that I am not attempting to devalorize or make a value judgment about music that falls within the *ethical regime*. Furthermore, some music might also qualify within more than one regime simultaneously.

I will define music that falls within the *poetic regime* as that which is appreciated for its own *substance* but still follows or imitates a model.⁷ Namely music that is judged by its own ‘musical’ qualities, and that is made with the main purpose of being listened to and evaluated by its own subject matter. This music would be *representative* insofar as it imitates or resembles a musical model (for

⁶Ibid., p. 22.

⁷By model I not only mean the written but also the unwritten rules in music performance and composition. The written rules could be for example treatises of harmony and orchestration whereas the unwritten rules could be performance practices and conventions in composition and improvisation, too name a few.

example rules of harmony, counterpoint or sonata form, to mention just a few). A lot of western ‘concert music’ would follow in this category in that it is made, heard and valued for its ‘musical’ qualities and judged as good or bad, adequate or inadequate, satisfactory or not, based on how the performer or composer follows certain models – in the case of the performer, models of performance practice, and in the case of the composer, compositional models such as chord progressions, voice-leading, musical themes, variations, etc.

It is interesting to note that even though in the visual arts the breaking from the *ethical regime of images* and the establishment of the *poetic regime of art* is what separates the ‘fine arts’ from other modes and techniques of production (of images, shapes, objects, etc), in music there is not such a change in definition. That is to say, in the visual arts this break between *ethical* and *poetic* regimes identifies the arts as such but in music it does not change its identification. Why is it that on the sonic domain we still call the ‘ways of doing and making’ in both regimes *music*? Why within our culture someone who designs billboards is not considered to be a *fine artist* (it probably would fall into graphic design) while we still call someone who writes television jingles a *musician*? Later, I will come back to this questions and look at the possible reasons and implications of this difference. However, before drawing any conclusions about the consequences of this disparity, first I will examine the *aesthetic regime of art* to have a better understanding of Rancière’s enquiry.

The aesthetic regime of art and the shortcomings of the notion of modernity

Rancière calls the *aesthetic regime of art* that which liberates art from the *representative regime of art* by breaking with its identification as the division of ‘ways of doing and making’. The *aesthetic regime* therefore puts an end to the models used by the *representative regime* and breaks the barriers of identification in the arts. It does so by distinguishing art as an occupation that establishes, questions and alters the concept of what art is, its hierarchies, subject matter and genres.

The aesthetic regime of the arts is the regime that strictly identifies art in the singular and frees it from any specific rule, from any hierarchy of the arts, subject matter, and genres. Yet it does so by destroying the mimetic barrier that distinguished ‘ways of doing and making’ affiliated with art from other ‘ways of doing and making’, a barrier that separated its rules from the order of social occupations. The aesthetic regime asserts the absolute singularity of art and, at the same time, destroys any pragmatic criterion for isolating this singularity.⁸

⁸Ibid., p. 23.

Hence, the *aesthetic regime* establishes the autonomy of art and at the same time makes art independent of its own forms. As a result, the artist becomes a practitioner of a discipline specific to whatever falls into the category of art.

At this point, we should think of the *aesthetic regime* in the domain of music. I will propose that music that falls within this regime is music that challenges the *poetic regime* and the very notion of *what music is* at a given point in time. It also should be thought as a regime that makes music independent from its own subject matter, rules, conventions and genres, and frees it from specific ‘ways of doing and making’. It changes music’s visibility and makes it autonomous from the very notion of itself, from its expected ‘musical’ and social functions.⁹ In the history of music, it is easy to think of examples of music that breaks with musical practices of that time and redefines itself¹⁰. Nevertheless, it is difficult to think of music, before the twentieth century, as an autonomous discipline, freed from its own *substance*. That is to say, even though the definition of music changed and was challenged in several occasions, it was not until the twentieth century that the concept emerged of ‘the musician’ as someone who creates whatever he concedes suitable music to be, and is not expected to follow traditional formulas and well-known models of music-making. Even to this day, I think that this concept of music and ‘the musician’ is not very widespread within the community.

Rancière, goes further to examine the limitations of the notion of modernity and its relationship to the *aesthetic regime of art*. He describes what we commonly refer to as *modernism* in art as an ‘incoherent’ label designated instead of what truly should be attributed to the *aesthetic regime of art*. There is a sort of simplicity ascribed to the notion of modernity that is viewed as a clear line of transition or rupture from the old to the new and in the case of the visual arts between figurative and non-figurative representation. Rancière argues that the break from figurative representation is a confusion that emerged from the simplistic view that this break would mean a rupture from the *representative regime of art*.

The basis for this simplistic historical account was the transition to non-figurative representation in painting. This transition was theorized by being cursorily assimilated into artistic ‘modernity’s’ overall anti-mimetic destiny... However, it is the starting point that is erroneous. The leap outside of *mimēsis* is by no means the refusal of figurative

⁹Here I refer to ‘social functions’ not as in the purpose or use of music within the *ethical regime*, but the social functions it performs within the *representative regime*.

¹⁰There are too many examples for me to list them here.

representation.¹¹

Therefore, the break from figurative representation does not mean the establishment of a new visibility for art nor a break from the mimetic barrier of ‘ways of doing and making’. Moreover, Rancière asserts that the contradiction of the *aesthetic regime of art* which on the one hand establishes the autonomy of art and on the other hand questions the distinction between art and other activities leads to two big misunderstandings of the notion of modernity. The first confusion was to simply associate the modernist movement with the autonomy of art. The modernist project was therefore reduced only to an ‘anti-mimetic’ movement that concentrates on the idealistic concept of stripping away from all references of previous art forms and works in order to reveal art’s ‘purity’ of form and reach it’s ‘essence’. They attempted this by exploring only the formal aspects of art by focusing on the capabilities of it’s own medium. The second big confusion, according to Rancière, is the idea that the forms of the *aesthetic regime of art* were somehow related to other forms that would materialize by accomplishing a task or fulfilling a destiny specific to modernity. In other words, the revolution that rendered autonomy to art became the example for the Marxist revolution. The failure of both the ‘anti-mimetic’ principles of modernism and the political revolution resulted in a ‘crisis of art’ caused by this paradigms of modernism. Modernism in art therefore “became something like a fatal destiny based on a fundamental forgetting.”¹²

At this point, I will propose that a similar confusion has taken place in western music, which leads to analogous misunderstandings regarding the so called modernist project. However, in order to avoid simplifications we should first remember certain aspects about the state of western music at the end of the nineteenth and beginning of the twentieth centuries. It is important first of all to realize that due to certain developments in western music by the end of the nineteenth century there was a clear specialization of musicians and some were trained specifically as performers and others as composers. This division of occupations in music lead to a greater dichotomy in the ‘ways of doing and making’ music. The specificity of the performer’s creative decisions therefore became mostly linked to the realization of a given score. The composer’s role, on the other hand, was to provide a score to the performers and establish certain directions and instructions on parameters such as in pitch, rhythm, musical form and instrumentation to name a few. During this time, the role of the composer became more prominent concerning music innovation and therefore most of these developments are attributed mostly to composers in western music history. Hence, I will mostly refer to composers in attempting to explain the limitations of the notion of musical modernity. Nevertheless, by no means I

¹¹Ibid., p. 24.

¹²Ibid., p. 27.

am attempting to discredit or ignore the performers' role; I am just referring to the more widespread view of these developments. I will later explain in more detail the complexities of this division of occupations in western music regarding the *aesthetic regime* but in the meantime, in my analysis I will refer mostly to composer's work. To add to the complexity of this problem, I will mention that it would be a slightly reductionist point of view to assume that the composers at this time were fully aware of the transformation that music was undergoing. When we look at the writings from that period, we can not clearly see an explicit intentionality to give autonomy to music, redefine its visibility or revolutionize its 'ways of doing and making'. Nevertheless, I will argue that even though they were not fully aware of the implications of this transformations, some of their work and writing points towards the establishment of an *aesthetic regime* in music.

Emancipation of dissonance (Wagner, Debussy, Mahler, etc) =, Schönberg's free atonality and later twelve tone technique... signaling towards the aesthetic regime. The composer's attempt to free himself from musical substance and models (in this case through the rules of harmony)

Examples of composers that start to define the *aesthetic regime* in western music:

Stravinski's Rite of Spring =, the composer decides and redefines what concert music should be (introducing folk-music, primitive rhythms, etc)

Schönberg's atonality and twelve tone method =, the composer decides what he considers music to be and decides how it is to be organized, etc...

— "pure music", anti-mimetic notions: Misunderstandings started with the interpretation of Schönberg's twelve-tone system:

Schönberg about his twelve tone method:

What I feared, happened. Although I had warned my friends and pupils to consider this as a change in compositional regards, and although I gave them the advice to consider it only as a means to fortify the logic, they started counting the tones and finding out methods with which I used the rows. Only to explain understandably and thoroughly the idea, I had shown the a certain number of cases. But I refused to explain more of it, not the least because I had already forgotten it and had to find it myself. But principally because I thought it would not be useful to show technical matters which everybody had to find for himself and could do so. This is also the error of Mr. Hill. He also is counting tones and wants to know how I use them and whether I do it consequently (Schönberg, 1975, p.214).

Schönberg about the importance of atonality in his work:

I personally do not find that atonality and dissonance are the outstanding features of my works. They certainly offer obstacles to the understanding of what is really my musical subject.

But here comes the first misunderstanding...

2.2 The resurgence of representation and musical references

2.2.1 Technology, Appropriation and Postproduction

2.2.2 The postmodern condition and ‘the society of the spectacle’

resurgence of image / music quotations/references - first as reaction to the anti-mimetic later with digital technology, easy reproduction, etc, etc = the use of images becomes the same as before the establishment aesthetic regime : commodification, capitalism, DJ culture, digital quotations (in hip-hop, sound libraries, etc, etc)

2.2.3 criticisms

2.2.4 The liberal-comunists: Open Source, etc.

2.3 Radical Musics: Resurecting the modernist political project?

The distribution of the sensible. Ranciere. The Emancipated Spectacle. Did Music break with the mimetic regime? Is it still expected for a musician or composer to do something? Micheal Hard - instead of coming with new concepts (‘Art’ Music, Sonic Arts, Sonology, etc), why don’t we struggling with the old one?

2.3.1 Institutions, Music Industry, etc

2.4 Computer-Mediated Musicking

Christopher Small argues that music is not a thing or an abstract concept, but a human activity that he calls *musicking*, meaning all individual and collective endeavors in the process of music making. Moreover, Small questions the notion that a musical work is what gives meaning to *musicking*.

The act of *musicking* establishes in the place where it is happening a set of relationships, and it is in those relationships that the meaning of the act lies. They are to be found not

only between those organized sounds which are conventionally thought of as being the stuff of musical meaning but also between the people who are taking part.. relationships between person and person, between individual and society, between humanity and the natural world... (Small, 1998)

The music we compose and perform can convey our thoughts and express our feelings. As listeners we interpret... make us feel and think. Empathy. Exchange.

2.4.1 Compositional Strategies based on reshaping relationships in music making

Gilius piano pieces.

2.4.2 Reshaping relationships in music making through technology?

2.4.3 Evaluating Human and Machine Performance

Iteration

Generative Music + AI

2.5 Real-Time Plunderphonics

2.5.1 Musica Derivata and Plunderphonics

2.5.2 Redefining the ‘Real’ in Real-Time: A Lacanian reading of Live-Electronic Performance

Much has been written about the problematics of live electronic music performance using computers.¹³ Most of the discussion seems to be centered in how to define what ‘live’ means in a performance using computer technology which escapes the “well-understood Newtonian mechanics of action and reaction, motion, energy, friction and damping” (Emmerson, 2007). The problem of what appears to be *real* regarding a computer performance is a continuing source of debate. There are some with the position that the relationship between physical action and sonic reaction must remain for a performance to continue to have ‘liveness’ and meaning (Croft, 2007)¹⁴ while others argue that a new

¹³See Barrett(2008), Croft(2007), d’Escriván(2006) and Emmerson(2007)

¹⁴‘Theses on liveness’. *Organised Sound* 12(1), p. 59-66. 2007 Cambridge University Press.

generation of musicians are satisfied with having no apparent correlation between physical effort and sound output (d'Esquiván, 2006)¹⁵.

- Barrett's position.
- Simon Emmerson Real and Imaginary Relationships
- Lacanian 'Real', 'Imaginary' and 'Symbolic'

2.5.3 plunderphones, ideology and the use of references

Ranciere:

And the time came when the semiologist discovered that the lost pleasure of images is too high a price to pay for the benefit of forever transforming mourning into knowledge...

While some start up a prolonged lamentation for the lost image, others reopen their albums to rediscover the pure enchantment of images- that is, the alterity of the *was*, between the pleasure of pure presence and the bit of the absolute Other.

Evidence of exhibitions devoted to 'images', but also the dialectic that affects each type of image and mixes its legitimations and powers with those of the other two.

Plunderphones reflect ideology ... Žižek/Adorno but... The artist can present their own view of these references by rearranging them modifying them. The plunderphonics artist doesn't necessarily adhere to the ideology of the appropriated material, but reflects it by the use of the plunderphones - how are they presented, modified, etc?

2.5.4 Crossing Cultural Borders?

A discussion of Simon Emmerson's Crossing Cultural Boundaries through Technology. Žižek's view of Multiculturalism.

2.5.5 Micro and Macro Plundering

2.5.6 Interpassivity

¹⁵'To sing the body electric: Instruments and effort in the performance of electronic music', *Contemporary Music Review*, Volume 25, Issue 1 and 2 February 2006, pages 183-191

Chapter 3

Computer Applications

3.1 Spectral Tracking

3.1.1 PartialTracker

```
PartialTracker {  
  var <>window, <>time, task, <mags, <freq, <>number, <>audioIn=1;  
  var <>a, <>b, <>c, <f, <j, s, <>y, <>rq2, <>cutfreq, <>rqtime, <>o, <>t, <>z, <>dataArray;  
  var myfreq, <>magnitudes, <>frequencies, <>numBin=0, <>m;  
  var fftbuf, magbuf, freqbuf; //this should go - should fix PartialTrackerFile and FFTFilter  
  
  *new {arg window=256, number=20;  
    ^super.new.initPartialTracker(window, number);  
  }  
  
  initPartialTracker {arg windowSize=256, numberPartials=20;  
    s = Server.local;  
    window = windowSize;  
    number = numberPartials;  
    time = 2048/44100;  
  
    a = Buffer.alloc(s, windowSize*2, 1, 1);  
    b = Buffer.alloc(s, windowSize, 1, 1);
```

```
c = Buffer.alloc(s, windowSize, 1, 1);  
}
```

3.1.2 FFTFilter

3.1.3 SpearToSC and SpearToMIDI

3.2 Real-Time Scoring

3.2.1 AlgorithmicScore

3.3 Pre-compositional Tools

3.3.1 MIDI Mapping

3.3.2 MIDI Triggering

Chapter 4

E-tudes

E-tudes is a set of electronic études for six stage pianos, live electronics and Disklavier. These compositions were written for the ensemble **piano***circus*¹ for a project that became a two-year collaboration and led to two performances². What initially attracted me to this ensemble was their very particular instrumentation of six electronic stage pianos.

I thought this to be a suitable platform for me to experiment with the real-time plundering of the instruments' signals without having to deal with their acoustic sound. Another advantage of these keyboards is that I could use both audio and MIDI signals as building blocks for my own compositional ideas.

The set of pieces can be performed together or individually and their form of presentation is modular: depending on the set of circumstances for a given event, this composition can be presented either as part of a concert performance or as an installation.

The ensemble of six stage pianos is placed in hexagonal formation and divided into two subgroups. The first subgroup consisting of three pianists are asked to select études from the western piano repertoire³ and are to play them in the order of their choice during the duration of the performance. The second subgroup consisting of the remaining three pianists perform together from *The Sixth Book of Madrigals* by Don Carlo Gesualdo da Venosa (1566-1613).

The pianists playing the madrigals send MIDI information to two laptops that will transform the audio signal from the études and schedule the digital signal processing events. The audience will

¹The original six piano ensemble was formed in 1989 to perform Steve Reich's Six Pianos. Since then the original members have changed and now comprise of David Appleton, Adam Caird, Kate Halsall, Semra Kuruta, Paul Cassidy and Dawn Hardwic.

²Enterprise 08 Festival, The Space, London. 14 May, 2008. The Sound Source, Kings Place, London. 9 July, 2009. Sponsored by the PRS Foundation Live Connections scheme and Sound and Music.

³Examples of these are études by Chopin, Ligeti and Debussy, to mention just a few.

not be able to hear in the room what the pianists are playing as the stage pianos do not produce an acoustic sound. The seventh performer -the composer himself- will speak the Madrigals' text through a microphone and the spectral information from this signal will be used to process the final audio output and to trigger other sound events. The composer will also play a MIDI controller and will not have a fixed score, leaving space for an improvisational element within the human/computer interaction. Finally, through the analysis of all the inputs the computers will send MIDI messages to a Disklavier (mechanical piano) that will play the role of "virtual soloist" for the performance. In the room one will be able to hear the final result of the creative process of combining the simultaneous performances in diverse arrangements. The headphones that will be spread through the performance space will portray the inner life of the performance sounding in the room and reveal the inner layers of computer processing as well as the appropriated compositions.

simultaneously a performance and an installation. A single multilayered composition will be performed at various times over the course of the event. The audience will walk into, out of, and around the area surrounding the musicians and will have creative control over how they want to experience the performance. By choosing between listening to the speakers in the room or through headphones generating different outputs and distributed through the performance space, each member of the audience will fabricate their own version of the piece. E-tudes also challenges the audience by questioning traditional performance practice and creating a cognitive dissonance: what you see is not necessarily what you hear, and certainly not what your past experience leads you to expect.

Piano Circus, an ensemble featuring six pianists: Kate Halsall, David Appleton, Adam Caird, Semra Kurutac, Helen Reid and Graham Rix, will perform the piece. They will be playing on Roland RD700 Stage Pianos. The composer, Federico Reuben, will join them performing live-electronics: laptops, midi-controllers, microphone and mixer.

The ensemble will stay in their usual hexagonal formation but will be divided into two subgroups. Three pianists will choose etudes that are established in the piano repertoire (Chopin, Ligeti, etc.) and perform them whenever they want during the duration of the piece. They will be monitored individually through headphones. The other three pianists will perform together from the 6th book of Madrigals by Don Carlo Gesualdo da Venosa (1566-1613) and will be able to hear each other through headphone monitoring. The pianists playing the Gesualdo will send MIDI information to two laptops that will transform the audio signal from the etudes and schedule the digital signal processing events. The audience will not be able to hear in the room what the pianists are playing as the stage pianos do not produce an acoustic sound. The seventh performer -the composer himself- will speak the Madrigals' text through a microphone and the spectral information from this signal will be used to

process the final audio output and to trigger other sound events. The composer will also play a MIDI controller and will not have a fixed score, leaving space for an improvisational element within the human/computer interaction. Finally, through the analysis of all the inputs the computers will send MIDI messages to a Disklavier (mechanical piano) that will play the role of "virtual soloist" for the performance. In the room one will be able to hear the final result of the creative process of combining the simultaneous performances in diverse arrangements. The headphones that will be spread through the performance space will portray the inner life of the performance sounding in the room and reveal the inner layers of computer processing as well as the appropriated compositions.

The music will be specifically composed for this event and for Jerwood Space. Since the piece is conceived as an installation as well as a performance it is best suited to a space that encourages moving around and interacting with the work. In contrast to the concert hall, where the audience is locked to a single location, the space should promote interaction and invite the audience to pick up the headphones, which will be spread around. People should also be able to walk around and experience the piece from several locations and focus on various aspects of the different performances taking place. This venue offers all of these possibilities as well as giving the opportunity to go out and re-enter the space during the duration of the event. One can argue that these elements are fundamental for a piece that seeks to form a relationship with the listener and thus, it remains important that this event take place in this type of setting.

E-tudes questions the traditional role and relationships between performer, composer and listener and gives a unique and innovative approach to the use of found objects. The composer in this piece does not communicate with the performers by writing a score or by teaching them the music by ear as in previous performance practice conventions. He even lets the performers decide which pieces to play within a given repertoire. Therefore, the creative role of the composer is not to provide the music the performer should play but rather, in Oswaldian terms, to plunder their audio signal. On the other hand, E-tudes differentiates itself from John Oswalds Plunderphonics in that the plundering occurs in a live situation and that makes the performer an accomplice in the process of appropriation (of themselves). In a way, since E-tudes appropriates several live performances simultaneously, it proposes the notion of plundering in real-time, or Real-Time Plunderphonics. It is therefore important that the event take place in a live situation, as the theatrical effect of being plundered will be evident visually in relationship to the audio. Consequently, the amount of processing of the audio signals will be visible to the audience and the more processed the performances are, the more contrasting they will look in relationship to what is heard through the speakers. In E-tudes, this premise is consciously used to create a narrative that navigates, in literary terms, between the real (actual performance)

and the surreal (more extreme processed audio). In contrast with the acousmatic tradition (music presented through loudspeakers in a fixed medium where the sound sources are not visible), the live performance makes the process of appropriation transparent to its audience as a result of the cognitive association between audio and visuals. In an acousmatic approach, a sound that is radically processed loses its characteristics and therefore the cognitive relationship between source and result may be lost. On the other hand, if the source is exposed visually in a live performance, the audience will have more audio/visual links and one may suppose that the audio processing could be even more extreme without losing the association with the source. Furthermore, E-tudes approach is atypical in relationship to Plunderphonics or other music that borrows found material (for example, by musical quotation) in that plundering is not the central purpose of the creative process, but rather a tool for creating a new idiosyncratic audio/visual result. This difference is rather important since it addresses the question inherent in the ambivalence of plundering oneself to create something new as opposed to performing something new in an immediate and direct fashion. Therefore, the idiosyncratic result justifies the conscious participation of the performer in a piece in which what he or she plays is not directly heard by the audience. This position proposes a new relationship between performer and composer and it also presents a new approach to composition. The composers role is not to establish direct communication with the performer (through a score or oral tradition) but rather to use live audio signals of existing music as building blocks to create a new work. All of this is achieved by writing computer software (using SuperCollider 3 a programming language specialized in audio applications) specifically for the piece. Moreover, E-tudes takes a didactic attitude toward the process of appropriation by giving the listener access to the processed and unprocessed building blocks to show the different layers within the composition, not with the intention of being explicit, but to engage and establish a relationship with the listener. Finally, this composition combines the use of improvisation and generative music to have an unfixed output that changes for each performance of the work. This enables the piece to run in a loop during a long extended time frame without repeating itself. Every time the piece will be played not only will the audiences experiences differ, because of their own choices, but also the content of the piece itself will vary. E-tudes takes many elements used before in electronic music and live performance such as improvisation, appropriation, generative music, installation and traditional performance practice, and by combining them points to a development in performing with live electronics. By introducing a dynamic group of live performers and an appealing and interesting visual scenario, this event deals with the problematic of the lack of visual clues and theatrical elements that live electronics performance has faced since its beginning. Hopefully, it will also encourage other creators that deal with live electronics to think seriously about

the visual, theatrical and ritualistic aspects of performance. This composition will also contribute to instigating awareness within the contemporary music community on how the presentation of a piece can be as crucial as the sound. It also proposes that the creator is able to innovate by searching for new ways that the audience relates to the work. The event will also contribute to the creative development of the artists because it will give them the opportunity to try out and experiment on the various interactive and performative aspects of the piece and later examine and evaluate how these processes may be improved.

4.1 E-tude 1

4.2 E-tude 2

4.3 E-tude 3

4.4 E-tude 4

Chapter 5

On Violence

Chapter 6

Zizek?

Chapter 7

FreuPinta

7.1 Simulation Series

7.2 Occupation Series

7.3 Transgression Series

Chapter 8

Conclusion