ISTANBUL TECHNICAL UNIVERSITY ★ GRADUATE SCHOOL

TOWARDS A RESPONSE-ABLE COM-POSITION PRACTICE: ENTANGLING WITH HUMANS, MORE-THAN-HUMANS AND MATERIALS

Ph.D. THESIS

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Fulya UÇANOK
(409142002)

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Thesis Advisor: Assoc. Prof. Dr. E. Şirin ÖZGÜN TANIR

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KARŞILIKLI VE SORUMLU BİR KOMPOZİSYON PRATİĞİNE DOĞRU: İNSANLA, İNSAN OLMAYANLA VE NESNEYLE DOLANIKLAŞMA

DOKTORA TEZİ

Fulya UÇANOK
(409142002)

Müzik Anabilim Dalı

Müzik Programı

Tez Danışmanı: Doç. Dr. E. Şirin ÖZGÜN TANIR

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Fulya UÇANOK, a Ph.D. student of ITU Graduate School, student ID 409142002, successfully defended the thesis/dissertation entitled "TOWARDS A RESPONSE-ABLE COM-POSITION PRACTICE: ENTANGLING WITH HUMANS, MORE-THAN-HUMANS AND MATERIALS", which she prepared after fulfilling the requirements specified in the associated legislations, before the jury whose signatures are below.

Thesis Advisor :	**Assoc. Prof. Dr. E. Şirin ÖZGÜN TANIR** ..... Istanbul Technical University	
Jury Members :	**Assoc. Prof. Dr. M. Cevdet EREK** Istanbul Technical University	.....
	Prof. Dr. Tolga TÜZÜN Istanbul Bilgi University	.....
	Assoc. Prof. Dr. Jerfi AJİ Istanbul Technical University	.....
	Assoc. Prof. Dr. Robert F. REIGLE	.....

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This dissertation is an academic love letter to the messy and complex nature of socio-sonic relations we have with one another; human and not, living and non-living.

The task is to become capable with each other in all of our bumptious kinds of response.
(Haraway, 2016, p.1)

FOREWORD

I would like to start by thanking all three of my com-posers in this dissertation. I thank Sumru AĞIRYÜRÜYEN from the bottom of my heart, who has kindly and generously sent me her voice recordings making the study possible in pandemic conditions. It is always an inspiration to listen to her music and words of wisdom. And to the two Swallows that visited my window and changed the course of my dissertation, I salute you!

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June 2022

Fulya UÇANOK
(Musician)

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TOWARDS A RESPONSE-ABLE COM-POSITION PRACTICE: ENTANGLING WITH HUMANS, MORE-THAN-HUMANS AND MATERIALS

SUMMARY

This dissertation proposes an artistic research model that springs from a socio-musical imagination for composition. In this socio-musical imagination, there is an interest and desire to attend otherness, and to cultivate creative and generative sounding practices through collaborative socio-musical engagements. In the practice, relationality focuses on perspectives of response-ability[1] in the act of composing with human, more-than-human and material agents. I call this model response-able com-position[2] (RC), as the aim of the practice is to generate and cultivate various abilities to respond, and trace these responses within the act of composition.

In investigating possible realizations for response-able compositional practices, the model follows various feminist, non-anthropocentric, and new-materialist strands of thought, focusing on a number of concepts proposed by Karen Barad, Donna Haraway and the ensemble Gilles Deleuze, and Félix Guattari.

The dissertation explores and offers alternatives for assumptions regarding centralized, de-socialized, isolated and dis-embodied sound practices; and focuses on two main categories of relations in the practice: 1) Relations and engagement processes with others, 2) and Relations between the results of modes of production realized in stages of the composition process.

1) Instead of placing the performer/composer's agency at the center of the composition process, the model widens the center and puts it into motion, which shift to other humans, non-humans and materials where they are no longer the object of study, but the generators of knowledge itself. By privileging such a posture, the whole proposal of composition revolves around resonances and potentialities of acts of listening and responding together with agents within entangled relations.

2) As a result, the methodology proposes a series of acts for multivalently centered practice that is in flux, allowing the self to experience the consequences of alternating perspectives, while entangling within relations with discourses, other agents and selves. These acts include, listening and responding by aural analysis, sensory and movement-based forms of thinking (performance), and listening-back to the process, through re-evaluation. In such process I seek insights during the making, through a

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[1] Response-ability, is the ability and/or capacity of oneself to respond to others. The dissertation takes in hand the term from a feminist, new materialist perspective that follows Karen Barad (2007, 2010, 2014) and Donna Haraway (1992, 1997, 2008, 2016). Explained in detail in Chapter 1.

[2] I use the hyphen in the word com-posing, throughout the dissertation in order to point out to the relational nature of composition. Explained in detail in Chapter 1.

response-able and "polite" practice[3] that entails a knowing through and knowing with, instead of knowing about.

With this practice, my intended contribution is to offer a socio-sonic model that reworks the poietic process through a lens of a response-able com-posing. I investigate and articulate various relational possibilities for the poietic process by reading every act as relational, and every relation happening with an active embodied agent, knotting various agents (human and not) together in a co-authored, multivalent compositional space. The dissertation invesitages the nature and problems of listening, analyzing, performing and composing in such a musical space, and how the resulting works that materialize undergoing such a process may be evaluated and presented to others.

I believe, the epistemological postures proposed by the Response-able Com-position model offer engaged practices for learning to live and negotiate in a world of multiplicity and difference; offering recipes for multivalent socio-sonic engagements, which have potential to cultivate aware, caring and thoughtful processes for our sound practices.

[3] With the word "polite", I refer to Donna Haraway's (2016) "polite inquiry". Explained in detail in Chapter 1.

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ÖZET

Bu tez, kompozisyon pratiği için sosyo-müzikal bir tahayyülden yola çıkarak, "öteki"[4] ile kurulan sessel ilişkilerde yaratıcı ses pratiklerini araştırmakta ve uygulama için yöntemler sunan bir kompozisyon modeli önermektedir. Araştırma, öncelikle bestecinin kullandığı ilişkisel arayüz ile ilgilenmekte olup, bu arayüz için önerilen perspektiflerle, "birbirimizle olan sessel ilişkilerimiz yoluyla birbirimizden neler öğrenebiliriz?" sorusunu sormaktadır.

Model, ötekine karşılık/cevap/etki üretme imkânına, kabiliyetine ve sorumluluğuna sahip kompozisyon pratikleri için olası arayüzleri/yöntemleri araştırırken, Karen Barad, Donna Haraway ve Gilles Deleuze/Félix Guattari tarafından önerilen bazı kavramlara odaklanarak çeşitli feminist, yeni-materyalist ve insan merkezci olmayan perspektiflerin izinden gidiyor.

Önerdiğim modeli "*Response-able Com-position*" pratiği olarak adlandırıyorum ve RC kısaltmasını kullanıyorum. "*Response-ability*" terimini Karen Barad (2007, 2010, 2014) ve Donna Haraway'in (1992, 1997, 2008, 2016) kullandığı şekilde ele alıyorum. Kısaca "Response-ability", kişinin insan ve insan olmayanlarla ilişkisindeki karşılık/cevap/etki üretme imkânı, kabiliyeti ve sorumluluğudur. Barad ve Haraway'in üretim anlayışı, dünyanın sosyal ve maddi pratikleriyle iç içedir. Her iki bilim kadınına göre, bilgi üretimi ilişkiler ağı içerisinden okunur. Bu duruş her şeyden önce dikkat etme, fark etme, önemseme ve ilişki içinde ortaya çıkan rezonanslardan etkilenmeye açık olmakla başlar. İkinci olarak, her iki akademisyen de yanıt/karşılık/cevap verme yetisinin, aynı zamanda, başkaları için de sonuçları olduğunu bilerek, kişinin kendi düşünce ve eylemleri üzerinde tam sorumluluk alması ile ilgili olduğunu öne sürer. Dolayısıyla bu kavram hem cevap verilebilirliği hem de karşılıklı sorumluluğu ifade eder. Kompozisyon pratiğimde bu kavramı müzik bağlamında uygulamaya koymak üzere yöntemler araştırıyorum; bu kavramın sonik bilgi ve estetik üretimine nasıl katkı sağlayabileceğini sorguluyorum.

Tez kapsamında, "*response-ability*", kompozisyon eyleminin bir parçası olarak ele alınmaktadır. Kompozisyonun ilişkisel doğasına dikkat çekmek için tez boyunca bu kelimeyi tire (-) ile ayırıyorum: "*Com-position*". Kompozisyon kelimesi Latince *componere*'den gelir. *Com-*, ön eki Latincedeki *con*'un eski bir versiyonudur; "birlikte, katışım, bir arada olmak" anlamlarına gelir; *-ponere* ise "konumlandırmak ve

[4] Bu tez kapsamında "öteki", 1) insanlar (müzisyenler), 2) insandan öte (more-than-human) olanlar (insan dışındaki canlıları ve canlı olmayan şeyleri kapsayan çevresel sesler) ve 3) materyal nesneleler olan müzikal enstrümanlarını kapsamaktadır. Tezde ötekilik ve kendilik arasında yapılan ayrım, öteki'nin de bir kendiliği olduğu yadsımamakta olup, kelimeyi dışlayıcı bir tavır ile kullanmamaktadır. Bu tez bağlamında, kendilik tezde önerilen kompozisyon modelini uygulayan herhangi bir kişiden bahsetmek için, öteki ise ilişkiye girileni ifade etmek için kullanılır. Giriş bölümünde daha ayrıntılı olarak açıklanmıştır.

yerleştirmek" anlamına gelir. O halde kompozisyon (*Composition*), bir araya getirmek ve birkaç parçadan bir bütün oluşturmak demektir. Buradan yola çıkarak, kompozisyon kelimesindeki tireyi, birden fazla failin (*agent*) bir araya gelerek üretmesi eylemini vurgulamak ve bağlamsallaştırmak için kullanıyorum.

RC pratiği, icracı/besteci failliğini besteleme sürecinin merkezine yerleştirmek yerine merkezi genişletir ve merkezi hareketli tutarak, diğer insanlara, "insandan öte" olanlara (*more-than-human*) ve nesnelere kaydırır; böylelikle onları sadece üretimin objesi oldukları bir pozisyondan çıkarır ve onlara üretimin aktif yaratıcıları oldukları bir alan açar. Böyle bir öncül üzerine inşa edilen sosyo-müzikal tahayyül, tek merkezli, tek yönlü kontrol sistemlerinin fantezilerini tanımak ve bozmak, çoklu ve akış halinde bir üretim alanı yaratmakla ilgilenir. Merkez, zaman zaman tekil olur, zaman zaman paylaşılır ama hep hareket halindedir. Amaç, hiçbir sesin diğeri üzerinde sürekli bir güç birikimine sahip olmadığı ortak bir sonik üretim alanı yaratmaktır.

Böyle bir sürece öncelik tanıyan bu araştırma, karmaşık ilişkiler ağı içinde gerçekleştirilen dinleme eylemlerinin etkilerini ve potansiyellerini incelemektedir. Bu dinleme eylemleri, sanatsal bir yaklaşımla araştırılmaktadır (*artistic research*); yani, araştırmada teorik materyal ile sanatsal pratiğin diyaloğunun ürettiği ilişkiler değerlendirilmektedir. Bu değerlendirmeler üç ana aktivite yoluyla gerçekleştirilir: 1) işitsel analiz yoluyla dinlemek, 2) hareket eden ve dokunan beden ile dinlemek (performans), ve 3) değerlendirme yoluyla (besteleme sürecinde) dinlemek.

Bu üç değerlendirmeyi açıklamadan önce kısaca dinleme pratikleri, müzikal analiz ve icra alanlarında müzikal araç olarak kullanılan iki temel kılavuzdan bahsedelim. Bunlardan birincisi Türkçeye "Zamansal Göstergebilimsel Birimler" olarak çevrilebilecek "*Temporal Semiotic Units*"[5] (TSU)'lardır. Bu birimler, semiyotik betimlemelerle bağlantılı, morfolojik bir organizasyona sahip on dokuz adet birimden oluşur. Bu birimler dinleme, analiz etme ve icra etme süreçlerinde ötekini sonik bağlamda anlayabilmek ve onunla ilişkilenmek için kullanılır.

İkincisi ise, icra aşaması için, görünürde zıt olan iki davranış örneğinden oluşan bir rehber modeldir: Benzerlik ve farklılık. İcra sürecinde kişi bu iki modele dayanarak, öteki ile ortak bir sonik mekânda, ses etme biçimlerini araştırır. Benzerlik modeli empati kurarak dinleme ile ilgilidir, burada kişi öteki ile benzerlikler bularak onunla uyumlanmaya odaklanır. Ancak bu, ötekini bir kostüm gibi giymek ve ötekini temsil etmekle ile ilgili olmaktan ziyade, öteki olmanın nasıl olabileceğini hayal ederek bu pozisyonu keşfetmekle ilgilenen, daha üretken bir yaklaşımdır. Kişi bu yaklaşımla, ötekinin seslerinin ve hareketlerinin uzantılarını oluşturur; perde, tını, jest, yapı, biçim, anlatı gibi çeşitli müzikal özellikleri taklit ederek ve/veya destekleyerek, ortak bir ses alanında üretim yapar. Farklılık modeli ise, adından anlaşılacağı üzere, iki fail arasındaki farklılıkları vurgulamakla ilgilidir. Ötekine baskın çıkmadan veya yıkıcı olmadan, onun seslerinden, perde/tını/jest niteliklerinden, biçiminden ve anlatısından farklılaşarak, ortak bir sonik alanda bir arada var olma biçimlerini keşfetmeyi amaçlar. Bu model, farklılıklar ile ilişkisel bir şekilde çalışmak, farklılaşmak ve dolanıklaşmak (to entangle) yoluyla bir dizi işbirlikçi olayı hayata geçirmekle ve bunun sonuçlarıyla ilgilenir. Böyle bir paradoksal durumdan hareketle, yeni düşünme, hissetme ve eyleme

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[5] *Les Unités Sémiotiques Temporelles*, 1992'de *Laboratoire Musique et Informatique de Marseille*'de (MIM) bir grup besteci ve sanatçı tarafından tasarlandı. François Delalande liderliğindeki çalışma, enerji-hareket yörüngeleri ile müzik ve/veya görseller arasında figüratif analojiler yoluyla bağlantılar kurmaya yönelik sistematik bir yaklaşım sunuyor.

yolları açmayı hedefler. Şimdi kısaca, yukarıda belirtilen üç değerlendirme yönteminden bahsedelim.

1) İşitsel analiz sürecinde öteki, zamansal göstergebilimsel birimler (TSU'lar) ile analiz edilir. Ve bir sonraki aşama olan, icra sürecine bilgi verebilecek metin ve grafikerlerden oluşan bir analiz eskizi üretilir. Eskiz analizi tamamlandığında, dinleyicinin analizi duyarak ve görerek takip edebilmesi için analiz videoları üretilir. Bu tezde, tüm videolar için Pierre Couprie'nin EAnalysis adlı analiz programı kullanılmaktadır.

2) Eskizler yapıldıktan sonra, benzerlik ve farklılık modeli kullanılarak, "kendinin" bedensel hareketlerine ve dokunma yoluyla dinlemesine dayanan icra aşamasına geçilir. Bu aşamada ilişkiler ağına başka bir fail daha eklenir: müzikal enstrüman yani, nesne-fail. Burada araştırma yeni-materyalist bir perspektifin izinden gitmektedir. Basitçe söylemek gerekirse, nesnesel-faillik, nesneyi statik ve pasif bir şey olarak anlamak (tarihsel olarak geleneksel anlayışta olduğu üzere) yerine, nesnelerin doğasında bir faillik olduğunu öne sürer. Burada özellikle Karen Barad'ın anlayışını ele alarak, nesne-failin durağan bir şey olmadığını, ampirik olduğunu, bedensel bir üretim olduğunu ve ilişkiler yoluyla icra ettiğini ve edildiğini vurgulayan anlayışı benimsiyorum. Burada sorulan soru şudur: Nesne-fail anlayışı beste/icra pratiğinde nasıl etkiler yaratır ve ne tür sonuçlar doğurur? Buna verilebilecek kısa cevap, nesne-failin, kişinin nesneye bakışını ve ilişkisini durağandan dinamik olana doğru değiştirdiğidir. Bu da enstrümanın insanı eşit derecede "çalabileceği" bir enstrüman-insan iş birliğini mümkün kılar. Bu anlayış, nesnelerle ilişkilerin kişinin fikirlerini nasıl şekillendirdiğine dair yeni bir bakış açısı sunar.

3) Müzikal enstrüman ile birlikte benzerlik/farklılıklar üretildikten sonra son aşama olan besteleme sürecine geçilir. Yeniden değerlendirme aşamasında, kişi bir nevi arkeolog olur. Antik kenti bulmak için tüm notaların ve ses kayıtlarının altına bakar, her bir unsuru tek tek inceler, bunları çeşitli konfigürasyonlarla bir araya getirir ve tez kapsamında önerilen kavram ve teorilerle bağlantılı olarak yeniden değerlendirir. Bu aşamada kişi, analiz ve performans süreçlerini yeniden düzenleyip, değerlendirirken üçüncü şahıs perspektifine geçer. Birikmiş deneyimlerden yola çıkarak üretim süreçlerini değerlendirir, sonuçları düzenler, şekillendirir ve "kom-poze" edilmiş eserler üretir, bu son ilişkisel eylemdir.

Her evre kişiye farklı bir ilişki, üretim ve düşünme biçimi sunar; kişi duysal analizde dinlemeyle düşünürken, icra evresinde hareket eden ve dokunan beden ile düşünür ve üretir; son kompozisyon evresinde ise dijital ortamda besteleme süreci ile dinler ve değerlendirir. Üretilenler lineer biçimde birbirini beslemek ve bilgilendirmektense lineer olmayan bir biçimde işler. Örneğin, son evrede yapılan bir değerlendirme, ilk evredeki analiz sürecinde yapılmış bir yorumu değiştirebilir vb.

Bu açıdan, benlik tek bir işleve indirgenmez, her zaman bir etkinlik ağı içinde (insan olan ve olmayan, canlı ve cansız şeyler) bir fail olarak konumlanır. Kişi üç aşama arasında hareket ederek yeni düşünceler, ilişkiler ve eylemler gerçekleştirirken, kendini sürekli bir devinim içerisinde yeniden konumlandırır ve dolayısıyla kendi içinde faillik merkezlerinin dağılmasını sağlar. Üretim biçimlerini bu şekilde değiştirmek, sabit, otoriter besteci figürünün tek merkezli ve tek yönlü düşünme akışını bozar ve merkezden uzaklaştırır.

Tez, çeşitli kavramların, teorilerin ve uygulamaların birbiriyle olan diyaloğu üzerinden bir kompozisyon pratiği gerçekleştirmenin zorluğunu üstlenirken, üretici-aktör/fail etrafında inşa edilen kavramlar hakkında geleneksel düşünme yollarından bazılarını

sorgulamakta ve yeniden şekillendirmeyi hedeflemektedir. Pratik, çeşitli failleri (insan ve insan olmayan) çoğulcu bir kompozisyon mekânında, bir seri ilişkiler ağıyla birbirine dolanıklaştırmakta ve sormaktadır: Böyle bir sosyo-müzikal mekânda dinlemenin, analiz etmenin, icra etmenin ve bestelemenin doğası ve sorunları nelerdir? RC pratik yolu ile ortaya çıkan eserleri nasıl değerlendirip sunabiliriz?

Bu kompozisyon modelinde, sürecin doğası gereği, keşfedilecek ve rafine edilecek pek çok şey bulunmaktadır, ancak bu tezde önerilen epistemolojik yaklaşım, günümüz kompozisyon söylemlerinde terk edilmiş birtakım bileşenleri gündeme getirmektedir. Bu tez, RC modeli ile, müzisyenlere ve bestecilere sosyo-müzikal bir çerçevede sonik ilişkilerin eylemlerini gözlemleme, eleştirme, izleme, ötekine katılma, onunla müzakere etme ve karar verme kapasitesini geliştirmeye hizmet eden yöntemler sunmaktadır. Uygulamanın, farklılıklarla dolu bir sessel alanda yaşamayı, müzakere etmeyi, karşılıklı ve sorumlu bir iletişim kurabilmeyi öğrenmek için bilinçli, özenli, önemseyen süreçler geliştirme potansiyeline sahip olduğuna inanıyorum.

1. INTRODUCTION

This dissertation proposes an artistic research model that springs from a socio-musical imagination for composition practice. The research sprang from my interest and desire to attend otherness, and to explore sonic practices for the composer to create-with others in socio-musical engagements. By socio-musical imagination, I refer to the term "sociological imagination", that is about reading things through a network of social connections, situated always within relational ontological positions.

Through various relational engagements including, a series of social, embodied, and entangled practices, I investigate how sounding, thinking and doing comes to sound, think and do, when it is done through an interlaced network of relationalities within the process of musical composition. In realizing such processes, I work through a practice-based model, where various concepts and theories are investigated through the practices of listening, analyzing, performing and composing; where abstract thought turns into movements of bodies, and vice versa through a feedback loop. The goal is to cultivate abilities and capacities of the composer to respond, and make with human, more-than-human[6], and material agents.

In exploring and exemplifying the model, I think with various theories and strands of thought by Donna Haraway (biologist, scientist, philosopher, and feminist scholar), Karen Barad (theoretical physicist and feminist theorist), and the ensemble Gilles Deleuze (philosopher), and Félix Guattari (psychoanalyst) within my sound practice. Throughout the process, some of the key theories and concepts that I investigate are multivalence, response-ability, agency (including material agency within a new materialist practice), "polite" inquiry, immanence, and intra-action. I explore working

[6] A term coined by the cultural ecologist and environmental philosopher, David Abraham. Today "more-than-human" points to a post-anthropocentric thinking that recognizes humans are embedded within the biosphere with animals, plants and environmental phenomena. In this particular dissertation, more-than-human agents include any living being other than human, as well as environmental sounds that include non-living things. More-than-human agents, and the relations formed with them in the context of this study, are further explained in section 1.1.3.

with, through, and beyond these theories and concepts within a series of situated practices that are based on sonic, embodied, and motion-based interactions.

In my exploration of various perspectives to engage with others, sound is regarded as playing a mediating role between the "self" and "other", creating relationships, as well as symbolizing relationships. At this point, I shall do a quick segue into explaining the use of the words "self" and "other" within the context of this dissertation.

I use the word "self" to talk about any person who ventures into the practice proposed within the dissertation. The word "other" is used to point out to agents the self co-creates with. It is important to point to the apparent contradiction here: that every living being is a "self"; and I recognize each self as an agent with voices, bodies and actions. I do not in any way, aim to undermine agencies within "others", I simply use the terminology to make the distinction between, 1) a person who undertakes the experience of the practice proposed within the dissertation (as self), and 2) each entity s/he/them interacts with, which inevitably becomes an "other". From now on, I will use "self" and "other" within this context. This dual distinction and its understanding within the context of multivalence is explained and situated further in the following sections. In order to delve into the model and its modes of functioning, let us continue by unpacking some key terms that will provide context and perspective.

1.1 Unpacking Main Terminology and Introduction to the Practice

I call the composition model I propose in this dissertation, "response-able com-position[7]"; and use the abbreviation RC[8] is used to refer to it throughout the text. The aim of the model is to cultivate abilities to respond; and to trace and understand the process, and results of responses within the practice of composing. Let us begin by unpacking these two terms that have their roots in relational ontology.

1.1.1 A response-able com-posing

In this research, the term response-ability follows paths introduced by Karen Barad (2007, 2010, 2014), and Donna Haraway (1992, 1997, 2008, 2016). Put briefly,

[7] I use the hyphen in the word com-posing, throughout the dissertation in order to highlight the relational nature of composition. Explained in the following section 1.1.1.

[8] From this point on, the response-able com-position practice will be referred as the RC practice.

response-ability, is the opportunity, ability, capacity and responsibility of oneself to respond to others. Both Barad and Haraway's understanding of the production of knowledge is connected to and entangled with the social and material practices of the world. According to both scholars, the production of knowledge is read under relationality, and requires response-abilities. Such stance first and foremost starts by the act of attending, noticing, caring, and allowing oneself to be affected and touched by the resonances that emerge within the relation. Attention and intention to notice are key here, as they rely on the premise that one shall perceive enough to be able to care enough. Secondly, both scholars understand response-ability as also about holding full accountability on one's own thoughts and actions, knowing that they have consequences for others.

> Shaping response-abilities, things and living beings can be inside and outside human and nonhuman bodies, at different scales of time and space. All together the players evoke, trigger, and call forth what —and who— exists. (Haraway, 2006, p. 16)

The two main strands of response-ability surface as key in my practice: 1) to build a response-practice by cultivating, acts of attention, care and heightened listening, in a shared and collective musicking[9] practice, and 2) by recognizing that there is a consequence of my musicking practice, making the process of com-posing as explicit as possible, through my perspective and experience in order to strike up conversations, and open up negotiations. So, I ask: How may such a practice bring about the producing and sharing of sonic information in a musical context? And, what this may offer in a larger socio-sonic context.

Next let us look into the word com-position. In my research, response-ability is nested within act of com-position. I use the hyphen in the word com-posing throughout the dissertation in order to point out the relational nature of composition. The word

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[9]"Musicking" is a term coined by Christopher Small, situating music within a relational and performative stance. The term highlights music as act, rather than a thing. He explains: "The essence of music lies not in musical works but in taking part in performance, in social action. Music is thus not so much a noun as a verb, 'to music'. To music is to take part in any capacity in a musical performance, and the meaning of musicking lies in the relationships that are established between the participants by the performance. Musicking is part of that iconic, gestural process of giving and receiving information about relationships which unites the living world, and it is in fact a ritual by means of which the participants not only learn about, but directly experience, their concepts of how they relate, and how they ought to relate, to other human beings and to the rest of the world" (Small, 2007, p. 9).

composition comes from the Latin *componere*. The prefix *com-* (of composition) is an archaic version of *con* in Latin; meaning "with, in combination, together". And *-ponere* means "to position, to place". Composition then, means to put together, to collect and create a whole from several parts. I use the word with the hyphen in order to symbolize and contextualize socio-sonic acts that emerge in the composition process, between several different agents as well as several different acts.

The relations of com-posing within this dissertation happens between the self and other as well as self and selves. These entails: 1) practices of making-with human, more-than-human, and material agents, as well as 2) a series of relations of self with self that comprise of separate roles: the writing self, analyzing self, performing self, and composing self. I call these roles modalities. Each shift of modality performs various leakages and ruptures during translations into the others, generating plural self-expressions, and a mesh of multivalent relational possibilities.

Practice of sounding within a response-able com-positional world, relies on the premise that the ways in which we pay attention shape in return, the ways we are able to listen and respond. As Haraway states: "It matters what thoughts think thoughts. It matters what knowledges know knowledges. It matters what relations relate relations. It matters what worlds world worlds. It matters what stories tell stories" (Haraway, 2016, p. 35). Throughout the research, I pay attention to certain relations and connections, looking through particular concepts, and theories that create certain postures, and not others.

Although acted from within particular and situated perspectives, the relations and connections are realized through a generative practice, where the self explores various postures and positions, in flux. In building upon such understanding and systems of functioning, the research adopts and adapts some strands of thoughts, theories and concepts of Barad, Haraway, Deleuze and Guattari, that propose thinking within-flux, moving away from rigid, prescribed manners for relations, being and knowledge production. I follow their paths, as what they propose, and how they propose what they propose matters to me as an artistic researcher.

I like to allude to the whole of the proposed practice as an act of "going visiting", understood by Hannah Arendt. Haraway explains:

> Hannah Arendt and Virginia Woolf both understood the high stakes of training the mind and imagination to go visiting, to venture off the beaten path to meet unexpected, non-natal kin, and to strike up conversations, to pose and respond to interesting questions, to propose together something unanticipated, to take up the unasked-for obligations of having met. This is what I have called cultivating response-ability. (Haraway, 2016, p. 130)

Here, Haraway quotes Hannah Arendt when she says "go visiting". Arendt writes, "To think with an enlarged mentality means that one trains one's imagination to go visiting" (Hannah Arendt, from Lectures on Kant's Political Philosophy; as cited in Haraway, 2016, p.126). Arendt's understanding of "going visiting" is practiced within this research through following desires to visit and inhabit each other's worlds, to reside and live through consequences that arise in relations; even if only temporary and partially.

Arendt's understanding of "going visiting" is in strong friction with enclosed systems that have lists, prescriptions, fixed and singular identities. Informed by such perspective, the RC practice works through situations where one does not know the answers in advance. And through this not knowing, arises the potential for cultivating capacities to inhabit a world that is not "you" (the self), and to be able to respond through heightened inhabiting of the world through considering consequences of one's actions in a shared sonic habitat.

In exploring a possible RC practice, I propose a series of perspectives and acts for developing the skill of aural presence to "go visiting", and trace encounters within the act of com-position. Let us continue by shortly unpacking the concept of multivalence as undertaken within this dissertation.

1.1.2 The understanding of multivalence

Multivalence, by definition, is a system that is capable of having more than one value, application, meaning and/or interpretation. Therefore, in a multivalent space, the existence of dissimilarities is a *sine qua non*. Within this research, difference is taken at hand as a tool for contemplation on forms of relations. The theories within the dissertation both recognize and understand independence of differences, as well as the connections and entangledness of them; performing both the stances, separating and unifying in one go.

In a conventional assumption, difference paves way for separatism and othering, suggesting power relations of I/other, insider/outsider which are positions that are based on binary categorizations. In order to set up a multivalent poietic space, there is the need to establish a logic of the "both/and" that also encompasses an "either/or" position within it. There is a need for a multivalent space that doesn't get rid of the binary, but includes it to form an expanded understanding to practice of knowing through sound. Therefore, the understanding of multivalence in RC practice is neither about eliminating differences, nor about seeking unity. It is about staying in-relation with differences, including situations where there is no resolution, hence developing forms of abilities to stay in relation and act from with-in it; and of course, the aim is doing so without falling into a continual chain of rejection or disruption patterns.

Built on such premise, the social imaginary within this dissertation is interested in recognizing and overthrowing fantasies of single-centered, one-way control systems, and to open spaces for heterogenous, and heterarchical relationships, where power moves and shifts, either singular or at times shared and multiple, but always in flux. The goal is to create a sonic-habitat where no single-voice has constant accumulation of power over the other.

In such a multivalent and relational practice, a series of resistances and accommodations on multiple ends emerge. Therefore, skill of response-ability depends highly on attending, noticing, caring, and negotiating with others. Let us dive in further, getting more specific as we go, starting with the question: Who are the agents within the com-positional space?

1.1.3 Introduction to the agents within the model

In this section, I introduce the agents, and briefly touch upon modes and forms of relationality practiced within the model. Within the scope of the dissertation, the main categories of agents include living beings, and non-living things, that branch out to three main categories: 1) humans: other humans, and self as "selves", 2) more-than-humans: non-human living beings (animal, plants, etc.), and non-living sonic agents within nature and environments (environmental sounds like the wind, the sea etc.), and 3) physical materials (objects). Let us unpack these categories of agents as understood within this dissertation.

The understanding of the self and selves: Within the model, the self is composed of multiple roles that consist of listening and analyzing self, performing self and composing self, which I call "selves". Let us take a closer look into these positions.

Analyzing self, works with aural analysis (sound as heard), which entails analytical thinking and categorizing through aurality. Rather than an interest to extract data that could not be perceived by the ear, the interest lies in analyzing through an embodied understanding of analysis, constantly asking what do I hear? How do I listen? How can I listen differently? What happens when I do so? What are the effects of what I hear on my bodily production as well as on analytical production? Constantly tracing statements of one's aurality in attending to the other.

On the other hand, the performing self performs with an instrument, through the experience of a moving and touching body i.e. motion-based and tactile form of attending to the other. Within this dissertation I perform with my musical instrument (piano and various material things placed within the body of the piano).

And finally, the composing self moves to a 3rd person view. It reviews, and re-evaluates the analysis and performance, editing results, making and breaking connections from within a composing practice.

Within the RC model, the understanding of the self weaves together the roles of a listening through analysis, listening through performance, and listening through composing, weaving the selves that emerge from each act into one, with no one overpowering the other. These roles are in constant movement, dialog, contagion and response to one another, moving in and out of various centers and peripheries; producing multiplicities of self, and a mesh of multivalent possibilities.

Human Others: Within the scope of this dissertation, in working with a human, I com-pose with a musician; to be more exact, an improvising musician that had a sound-based musical practice. The term "sound-based" was coined by the composer Leigh Landy (2007) to describe music that is based on a wide range of sound types that are outside of solely note-based organizations. This opens up a musical understanding that provides an equal ground for various sound types that include both pitch, and more-than-pitch-based structures. I use a sound-based approach as it provides a multivalent and inclusive ground, affording to hold together a large variety

of sounds and sources within a common sound space. The third and fourth category of agents are more-than-human agents, and material agents.

More-than-human and Material Agents: Within this dissertation, more-than-human agents are narrowed down to agents within fixed sound recordings, i.e. acousmatic[10] agents. More-than-human agents could include a wide variety of living and non-living entities, ranging from animal, plant, environmental sounds etc. Physical material agents on the other hand, range from conventional and non-conventional musical instruments, to everyday objects.

I highlight these two categories of agents in this research to trace an engagement process that diverges from the weighty, historically-conventional understanding of composerhood. In the historiography of the bulk of our electroacoustic music discourses, aside from strands of soundscape studies, and other occasional mentions, within the engagement process, these two types of agents are particularly described as passive, inert and static things that are to be controlled and manipulated (this topic is further explained in Section 1.1.5). The response-able model moves out of this understanding of treating physical objects as well as recorded sound (historically expressed as "sound-objects[11]") as things that are passive, but rather proposes to take them in hand as agential forces, and to listen into what such understanding does to the human agent and its process of composition.

In pursuit of this objective, to open up a path for the reader to think outside of the historically conventional ways of engaging with the object, I adopt vocabulary from the anthropologist Tim Ingold (2010). Ingold differentiates between the words object and thing. He states that the "western historical" thought that has assigned passivity, and inert characteristics to the object; and in order to move beyond this understanding, suggests new ontological positions and relations. He proposes using the word thing instead[12] of object. As a means of guiding the reader accordingly, when referring to material agents within my practice, I use the word "thing" instead of using the word

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[10] The term comes from the electroacoustic composition tradition *Musique Concrète* in 1940's France, representing a specific style of composition, and where the presentation of works was made by loudspeakers. Today the term "acousmatic" is more broadly used to explain sounds that are heard without seeing the originating source of the sound.

[11] Recorded sound is historically expressed as "sound object" (*L'objet sonore*); coined by Pierre Schaeffer (1977) in his *Traité des objets musicaux.*

[12] By using the word "thing", Ingold refers to Heidegger and his influential essay "The Thing" (1971).

"object" from now in in the dissertation (for more information about this topic see Section 2.5.1). Next, let us take a closer look into the two categories of agents I engage with.

a) **Acousmatic More-than-human Agents within Sound Recordings:** Here, the engagement is with recorded sounds that have agential acousmatic presences within them; tied to bodies, space, time and situation. These agents could include a wide variety of living and non-living entities, and entail biophonic sounds[13]. The sounds may include urban city sounds, domestic sounds, and sounds found in nature; from living things to nonliving things, and their interactions within their shared habitats.

The immediate question that arises is: "How is the self to interact with such agencies that reside within sound recordings once the recording is fixed? Hence the agents within it cannot respond back, what type of relational positions are possible here? The particular strand of the model I introduce within the dissertation, focuses on cultivating abilities to respond; it is based on response practices. Therefore, it explores levels of engagement through learning, acceptance and ability to relate to a world without the self, and asks the question, how may the self join-in as an inquirer and com-poser? And how does this joining-in move away from postures of pinning down, fixing and controlling, but become about engaging, responding and offering? And, what does that do to the sounding engagement and the result? This is exactly the point in which we start the engagement process with sound recordings (the engagement strategies with recorded sounds are explained further in Section 3.2.1).

b) Material Agents (Instruments): Material in music making practice can mean many things, ranging from physical things that could be categorized under conventional and non-conventional musical instruments to digital interfaces, even to the sound file itself, and the list can still go on. Within this dissertation, I limit the understanding of material, to physical acoustic objects; and specifically, to my musical instrument: the piano and various things I use within it.

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[13] The terms biophonic and anthropophonic were introduced by the musician and soundscape ecologist, Bernie L. Krause (1988). Briefly, biophonic sounds are sounds that are created by all sounding organisms, in a habitat within a specific moment. Anthropophonic sounds are sounds created by humans, either by themselves, or through technologies they create.

In attending to the human-instrument relations, the model takes up a rather unconventional view of adopting new materialist thought into musicking practices. There are various forms of new materialist practices. In my research, I follow feminist new materialist thinkers where the matter of agency lies at the heart of the practice. Simply put, material agency proposes that there is an agentiality inherent within these materials, instead of understanding material as a static and passive thing (as in the historically-conventional understanding). I specifically follow a strand of Barad's understanding that is interested in the matter of non-human agency, and stresses that agency is not something inert, but an action, it is empirical, it is bodily production, and it is enacted through relations.

So, I ask: what may material agency do to the com-position practice? What types of consequences could it produce? An immediate answer is that, recognizing agency in objects, changes one's' view of material from inert to a dynamic one, which makes possible an instrument-human collaboration in the making where the instrument may equally play the human. Material agency works through speculative thought in guiding the practice, and it overthrows conventional, habitual human experience. In a way, this allows the self a fresh look into questioning of how do relations with objects shape one's ideas.

In attending to the constellation of agencies and complex world of multiplicity —as briefly introduced above— I focus my lens to the notion of bodies and performativities, which further situates and frames my practice.

1.1.4 The role of embodiment within the practice

In my practice, I value tactile and sensory inclusivity in the process of com-posing/performing; and invite touching and moving body into the research. Tactile and movement-based thinking, produces different information than that of the thinking of non-moving and non-touching body. After all, my research is interested in putting a group of concepts and theories in relation with a network of moving and sounding agents with bodies. And, I am interested in tracing these movements of bodies-in-relation within a shared sonic habitat.

Gesture in any case (physical or imaginary), requires bodies, and a space in which movement happens. From various practices and disciplines ranging from biology, gender, political and social theories we know very well today that embodiment situates

us. In my research, the understanding of the body is at the core of the socio-musical activity (further explained in Section 2.4.3).

In working with the bodies of self, other humans, more-than-humans and material, I pick-up a musical tool that is based on a series of morphological motion models called Temporal Semiotic Units (TSUs) developed in Music and Informatics Laboratory of Marseille/France (MIM). TSUs are explained in detail in Section 3.3.3.2. I use these motion-based semiotic units because they direct the aural intentionality towards movement, supporting and guiding consciousness of the listener. This frame allows the self to explore a sense of shared action, paving for potentialities of opening up a deeper possibility of entrainment, empathy, and therefore facilitating a response-able com-posing. Therefore, the practice of developing sensitivity "to go visiting" that is attuned to response-able acts, is highly tuned in with thinking and doing sound through the frame of embodiment.

A musicking practice based within a multivalent plane, where entangled selves and others sit at the heart, as an evident result, moves away from the singular and centralized understandings of the composer, and into practices of movement; decentering and re-centering.

1.1.5 The feedback loop of decentered/re-centered practice

In pursuit of cultivating response-abilities in co-creation, the RC practice is interested in shifting out of self-centrism and anthropocentrism. In doing so, instead of placing the practice of the self at the center of research, it explores ways to widen and shift the center to other humans, materials, more-than-human others, and discourses where they are no longer the object of study but become the generators of information.

In the bulk of our Eurogenetic discourses found in the written historiography of music creation, the composer is portrayed as someone who is a solitary creator that gives life to what wasn't there; creating by means of controlling and manipulating the passive and static sound; i.e. described as someone who is in command of from a hierarchical perspective. The roots of this understanding stems to 18th and 19th century Eurogenetic[14] art tradition of the solitary, centralized, essentialist and genius composer

[14] The term "Eurogenetic" is coined by Robert Reigle (2004). He suggests the term as an accurate and neutral way to describe musics and musicking practices where one or more of its components originate

mindset. This cult, I believe could be well understood as a strand that reached into the modernist narratives. I read this as a natural consequence of isolation, artistic individualism and autonomy that has been the case in historically conventional practices found in much of acoustic/instrumental composition practices as well as the later-arriving electroacoustics; and especially acousmatics. Much of our language and discourses around these practices avoided a collaborative mindset throughout the whole of the process; from collecting the sound material, to the organization and development of the recorded and synthesized sound in the electroacoustic domain.

With the advent of the 20th century, abundant flourishment of new forms of meaning making in musicking practices took place. And since, many approaches that blur the boundaries of the essentialist composer emerged, scrambling the previously established fixed vectors of composer, performer and audience. New forms of relations emerged where the poietic agent is not described as someone who is in command of, but is someone who is one actor within a network of entangled relations with other agents and acts.

Some early yet prominently influential approaches that also inform my practice include Pauline Oliveros' approach to composition and her Deep Listening practices, various branches of sound ecology studies and its extensions like soundscape composition, and soundwalks, especially writings and works of Hildegard Westerkamp, and John Cage's writings on composerhood and music practices. Along with these early approaches, many others also inform my practice; some among them are David Rothenberg's interspecies approach to musicking, Cathy van Eck's forms of sound art, Scot McLaughlin's approach to material agency and his recent continuing work with the clarinet, and George Lewis's generative improvising AI systems.

Today, one of the prominent characteristics of 21st century musicking practices, is the interest in the transformation of the roles of composers, interpreters, instruments, works, and audience. There are numerous practices that scramble the components of composerhood, proposing innovative ways to listen, respond, perform, resonate, receive and express through musicking, and the use of language. This research

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in Europe. He offers the term, instead of more value-laden alternatives like Western, Non-Eastern, Pan-European, Eurocentric. See: Reigle, R. (2014). Throughout the dissertation I refer to the term Eurogenetic under this context.

positions itself in line within a wide spectrum of these practices; and is interested in exploring fresh forms of creative postures movement through a feedback loop of decentralization and re-centralization.

From this standpoint, it could be said that an underlying matter that runs through the dissertation is a constant questioning of the conventional notions of what belongs and doesn't belong to composerhood; and what composerhood could mean from the specific socio-musical imagination that opens a window to a relational network of sounding practices, asking what might be a possible other?

Therefore, in attempting "to go visiting" with the intention to com-pose, the RC model explores various practices of decentralization, and it does this through deliberately subverting simple top-down processes of composition, and interpretation. By abandoning fixed and stable paths, and offering a relational plane of multiple agents and acts, the RC model allows the self to empty-out various conventional prescriptive and obligatory ways to think and respond. The model approaches the practice by offering processes to soften boundaries of fixed structures by re-generating relational acts, responses, interpretations, perspectives, selves, and therefore problematizing, questioning and negotiating singular ways for relation, production and identities.

The next obvious concerning issue then, brings the following question; as a performer/composer and the writer of this dissertation, don't I already impose and assert my own perspective creating power imbalances? The answer is of course, yes. Any poietic agent inevitably forms hierarchies, going through acts of control, manipulation and power on various levels; some very obvious ones being, assumptions, capacities, habitual patterns of interactions, predispositions, attitudes, goals, motivations and taste in the creative process during the com-positional act. Composing and writing a dissertation for that matter, are constructions of the writer/performer/composer/researcher where already many levels of controlling and power mechanisms play a role.

And so, in working with one's own centrality, the RC model builds various practices of decentralization and re-centralization that run within various levels in the research[15].

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[15] Here, it is important to note that the model presented in this dissertation does not ostracize musicking practices that privilege the centralized composer. As mentioned above, centralization cannot be rejected all together, on top of this, the centralized composition stance also provides a set of valuable grounds for various forms of practice. The practices introduced here are about proposing expanded modes of

These practices include switching modalities (modes of production), observing and tracing one's own developing narratives, and working with tools and processes that afford multivalent and generative modes of thinking and doing, and then, evaluating them. The movements between centers and peripheries are all questioned and nested within the methodology, concepts and practices of RC; which construct a general listening attitude that is applied to every level of the research.

Through the process of imagining an otherwise, the model is disinterested in prescriptive work, for scriptural reading, and imposing processes of how things should unfold; rather it is interested in processes and tools that explore how things could, and might unfold through unconventional, experimental and experiential processes. The model is about exploring, possibilities for what types of multivalent spaces (shared sonic habitats) there might be, what types of relations there might be, and who ourselves might be through a series of sonic encounters informed by a response-able practice. These sonic encounters consist of a series of stages that explore and demonstrate a possible realization for a response-able com-position practice. Next let us take a look into these stages.

1.2 Introduction to the Four Stages of the RC Practice

A response-able com-position may have many possible reincarnations in musicking practices. In this dissertation, the practice is explored through four stages. These stages introduce four modes of production I call modalities, functioning as vehicles for investigation. Here I'll briefly introduce the stages, and will provide detailed explanation of them in Chapter 3.

These modalities are 1) initial encounter: inviting, joining-in to make with the other, 2) aural analysis, 3) tactile and movement-based performance with instruments (agential materials), and 4) re-composing/re-evaluating the results with, through and beyond the concepts and theories. Each stage informs the process and the results by offering different forms of relationality, and are valued equally within the research.

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perceptive capacities for relational making, and for opening up discourses for negotiation. The main approach of the model is to think with and work through addition rather than rejection; keeping in mind that the act of addition also functions to enable or block other possibilities.

Stage one: Initial encounter; inviting and joining-in with others

The first stage for the act of "going visiting" happens with the initial encounter, where the self invites and/or joins-in with the other. In early phases of my thinking about the practice part of the dissertation, I thought of interacting real-time with others. However, due to the Covid-19 pandemic, I couldn't get together with other people in shared and enclosed spaces. And as my instrument (the acoustic piano) requires me to be in an enclosed and non-mobile position in space, early in my practice, I eliminated the possibility of working in real-time interactivity with others, and moved into working with responding to/with them through sound recordings. And the thing about a sound recording is that it situates: it cuts, fragments and reterritorializes; it is partial. And so, I listen into these recordings, to find possible ways for joining-in, and to sounding-with the other, with the awareness that I have partial and situated information without a real-time interaction.

Within the practice, I could have either asked musicians to send me the recordings of their performances, or I could have recorded various sounds (in interacting with more-than-humans) myself in outdoor spaces. Within this dissertation, I worked with both approaches. Firstly, I asked a musician (Sumru Ağıryürüyen, an improvising voice artist) to send me a recording of her performance. I provided her with energy trajectories (Temporal Semiotic Units) to guide her movement and gestural thinking in her performance. She sent me her responses through her own interpretation of these movement, and energy trajectories. And secondly, working with more-than-human agents, I made a recording from my window, gleaning sounds of two swallows in dialog. After the initial encounter with the other, where the fixed media recordings are gathered, the self moves into the aural analysis phase.

Stage two: Aural analysis response

In the aural analysis process, a cartographic study begins. I analyze the gathered recordings, jotting down sketches, in the form of text and graphic representations. Later when the analysis sketches are completed, I make video representations of the analysis for the listener to trace my aural listening and thinking, both seeing and listening the analysis. In the analysis mode of visitation, a listening/responding-with, rather than a listening/responding-to is key, as it shifts perspectives from object-based

thinking to agent-based one. For some of the graphic representations and all the videos, I use Pierre Couprie's visual analysis program called EAnalysis.

Once I listen and analyze the sounds, and sonic movements of the others, I move into the phase of responding with them through the performance stage. In this third stage, another agent is added to the relational network: the material agent (the instrument).

Stage three: Tactile and movement-based performance response

In this stage, I pick-up a new materialist practice with my instrument, and generate responses through two relational perspectives.

1) Relational stance with the instrument (material agent): In my practice, the instrument (piano and things within the body of the piano) are not considered static and passive awaiting to be animated and controlled, but understood as agents through a new materialist outlook. Material agency is practiced through contingent characteristics of the material (explained in detail at Section 2.5.1.1).

2) Response Models: Playing-with the instrument in response to the recording through an embodied, and performative mode of thinking, I produce various responses using two seemingly binary and simple perspectives to guide the intentions: similarity and difference responses.

The similarity response is about empathetic thinking, I work through mimicking the other. However, this is not about direct mimesis, somewhat like wearing the other like a costume, and aiming to represent the other, but a more generative approach that is interested in exploring through imagining what might becoming-the-other be like. Through this mindset, I generate various responses with the other, forming extensions of their sounds and movements, mimicking and/or highlighting various musical characteristics like, pitch, timbre, gesture, structure, form, narrative etc.

The difference response, on the other hand, is about highlighting difference. Without overpowering or being destructive to the other, the difference response aims to figure differing forms of co-existence, exploring opposing the sound and gestural characteristics, the form, and narrative of the other. The difference response may result in changing the flow of structure, and initial meanings that the self has gleaned from the aural analysis stage. After generating these responses through a series of experiments and rehearsals, the practice moves into the re-assessment phase.

Stage four: Reassessment response

In the reassessment stage, the self somewhat becomes an archaeologist; looking underneath all the notes and sound recordings to find the ancient city, looking at each and every element, dusting them, and re-evaluating them, piecing them together in various configurations, in relation with the concepts and theories proposed within the dissertation. In this stage, the composing self moves to a 3rd person view, re-editing, re-evaluating the analysis and performance of self-in-relation. The self listens-back with accumulated experience, and through contemplation, further responds by editing and shaping the results.

After all the experiences are gleaned, and responses produced, I consider how the practice could be presented to the audience, so that the process is transparent.

Modes of representation

The resulting works could be presented in two forms: 1) Fixed-media audio works, as com-posed musical pieces, 2) Presentation of the process itself as the work itself; which makes explicit the process of the com-position that includes sketches, text, graphics, videos, and audio recordings.

The first form of representation, is to present a single fixed-media audio work. The com-posed pieces exemplify results of the practical applications informed by the theoretical models. However, they are types of containers where the thought and actions behind the process are easily obscured. Within the fixed musical works, the relational choices and stories are most probably not apparent; what is presented in these them, is a single distilled remainder of the multivalent process.

The second form of representation is the presentation of the process as the work itself; which gives primacy to the process rather than final results. It includes various forms of documentation of the processes that are not polished end-results, in and of themselves, but carry in them the choreography of acts, and thought processes. These documents make the process available for the receiver, so that they may trace the application of the RC practice if they wish to do so. These include sketches, texts, graphics, analysis videos together with other autoethnographic notes. Now that the four stages are briefly introduced, let us unpack “the why” of this particular process.

1.2.1 The purpose for this process

Moving through the stages that entail switching modalities, the self generates a series of results. Each stage expresses a different form of aural performativity. From this angle, the self is not reduced to one function, it is always situated as a player within a network of activity (along with humans, more-than-humans, material things and selves). By moving between the four stages, the self constantly let us go of one's previous self and position, and analyzes it through another lens. Therefore, the self constantly re-positions oneself; switching modalities in such a way, disorients and de-centers a fixed, authoritarian poietic figure. The self moves in, through, and in-between various positions, and generates various outcomes that may be in accord or discord with one another; opening up planes for negotiation.

The model proposes a generative practice; which by nature is a non-arrive-able activity. Each relational sonic act is understood as partial and situated information that creates connectible ends for moving towards something anew, through a series of entangled relations. The "towards" in the title points exactly to this understanding, the notion of always moving towards something, and a constant becoming-with-in the process of relations.

In the (re)configurations of actions, definitions and relational positions, there is a constant picking apart of both doing and theorizing. The next section shortly dives into why an artistic research is chosen to be the most useful realization apparatus in realizing this model, and how it functions within the model.

1.3 Why Artistic Research?

Looking for a research model that affords a modular, generative and multivalent manner of research without imposing singular and fixed processes, I found that artistic research is very fruitful. An artistic research allows one to explore plastic boundaries of art making and research (both as a practitioner and a researcher), allowing one to undulate between intuition and critical thinking, non-goal-oriented play and goal-oriented intention and purpose. These processes, provide fruitful grounds for rethinking and renegotiating the existing knowledge about art, processes of art making, research as well as everyday life.

Today more and more artists, scientists and scholars began adopting studies, and researches that bring together theory and practice. And practice-based research is carried into educational, institutional formations and into laboratories, as well as departments in universities, and became a part of the grant agency category that academia began to recognize and support as a form of knowledge production. The researches that bring together theory and practice are expressed with different vocabulary in varying geologies/cultures and communities. Some terms we come across —which mean nearly the same— are, art-based research, creative research, research creation, action research, performance research, artistic research, practice research, practice-based research, practice-led research, practice-as-research, research-led practice, heuristic research (See Frayling, 1994).

Suzan Kozel in her article "The virtual and the physical" (2010), suggests that artistic research is in itself a form of performance. And suggests that there is a crucial reciprocity between models of research and practice: "Practices point to different models of knowledge and the models offer up refinements of the practice" (Kozel, 2010, p. 204). Although practice and research offer different modes of knowledge production, they afford connectible ends that feed one another. Because of this, today artistic research is accepted mainly as a multidisciplinary pursuit.

Consequently, in my practice, neither the theoretical nor the empirical information is solely used as a basis for the poietic model. Both inform the methodology that builds a process to understand, refine, assist decisions based on the appointed criteria. Under this light, none of these two modes (practice and research) are appointed to a second order that comes after the other, but are entangled, and provide ways to think along with one another through a feedback loop. For a generalized, overall view of my approach to artistic research, look at the following Figure 1.1:

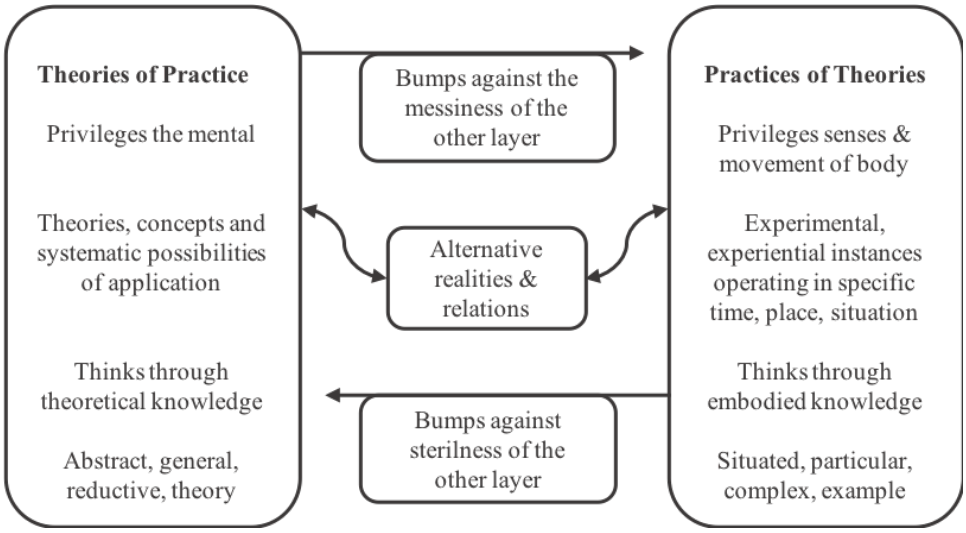

Figure 1.1 : Overall Approach to Artistic Research.

Thinking and doing through the dance of practice and theory (art and research), the self magnifies the cross-over points. These points of crossing-over from one mode to the other, bring ambiguity and unknown into the process, due to the problem of "knowledge transfer" (see, Venpaul, Johnson, 2006, p. 802).

Working through such a research process, as a result, the practice does not take for granted that the proposed theories will be manifest in the music-making process or the resulting music, and vice versa. What emerges from the information-transfer, whether it affirms or rejects information from the other mode, or if it has direct clear and direct relations or not, are considered as starting points for further creative development rather than moments that are judged and dismissed.

However, there is a tension that arises from the transfer problem, occurring between the two modes of production; and this charged and dynamic tension is essential means that drive my practice. Such practices are experimental in nature, and by inviting the unknown, where the process would not always behave as expected, it opens up a space for the self to sit-with, and respond-from within the creative space of discomfort the unknown and unexpected brings. Elke Bippus (2013) describes in her article "Artistic Experiments as Research":

> Aesthetic thinking can be described as polyvalent, heterogeneous, and experimental, encompassing inconsistencies, incommensurabilities, and contradictions, and embracing incompleteness, just as artistic practice does. (2013, Bippus, p.122)

Therefore, the RC practice as an artistic research, is about process-led production rather than a product-led one; it evades sacralization and essentializing; and opens up spaces to learn and cultivate fluidity, plasticity and creativity, to move between myriad of thoughts and acts in socio-sonic relations.

With the information presented above, we can now say that the main concentration of the systemic process presented in the model is about movements-in-relation. It looks into how certain relations are made, what they produce, how they produce what they produce, and how we can interpret them in the end. These movements enable re-configuration of boundaries and definitions, therefore can afford to work with the speculative as well as the fact, the incomplete as well as the complete, the qualitative as well as the quantitative, subjective as well as objective; suggesting a holistic kind of engagement, and an open system that is always relational, throughout the process of com-position as research. Consequently, research does not aim for one, singular, fixed result, but a nexus of possibilities that are aimed to be beneficial for a poietic process that is interested in sympoietic, and response-able forms of co-creation. As Luciano Berio's stated:

> The urge to split and divide, which has pervaded the musical world for the last few decades, has also postulated an opposition between the empirical musical (who has no need for [formal] "synthesis" and is subject to circumstances) and the systematic musician (who starts with preconceived idea and follows an all-embracing strategy)- in other words, an opposition between the composer as bricoleur [tinkerer] and the composer as scientist. But creation is not [limited] to this unproductive dichotomy: the scientific or systematic musician and the empirical musician have always coexisted, they must coexist, complementing each other in the same person (Berio, 2006, p. 21-22).

As Berio points out, multiple roles of the musician have always coexisted; and artistic research is a fruitful plane in highlighting these roles, offering valuable insights, and opening up possible innovative ways to explore art-making and research processes.

In closing this chapter, I would like to state that, I hope to invite other practitioners of music to break, unpack or add new structures, contexts and processes to the proposed RC model. The goal of the model is to be a referential starting point that opens up connectible ends lead to new lines of negotiation. The following chapter introduces

the methodology together with the frames of contextual and theoretical framework of the RC practice.

2. METHODOLOGY AND CONCEPTUAL FRAMEWORK

In this chapter, the concepts and theories informing the methodology are introduced and explained within the frame of the RC practice. The particular applications of these within the music practice are explored within the next chapter.

The theories, concepts and methods introduced in this dissertation are chosen because they all support multivalent and relational forms of thinking and doing. They function to inform the understanding of agency, and forms of relationality that happen within a multivalent plane, where all sonic agential acts occur. They support non-essentialist, non-linear thinking processes, and afford modular and plural means of research.

Within this dissertation, the chosen concepts and theories have overlapping routes based in social, feminist, non-anthropocentric, and new-materialist strands of thought. Within my research, I mainly follow ontological, and epistemological postures proposed by Karen Barad, Donna Haraway, and the ensemble, Gilles Deleuze and Félix Guattari, investigating concepts of multivalence (through immanence), response-ability, agency (including material agency within a new materialist practice), "polite" inquiry, and intra-action. Throughout the process, some concepts and theories are plucked out of their homelands, and applied within a realm of musicking through a contextualized practice of socio-musical imagination.

The methodology, and its systems of functioning are informed by three main entangled categories. 1) The concepts and theories, 2) The metaphorical plane determining how concepts and theories function (effecting agents, behaviors and relations) in the RC practice and, 3) The practice part of the research, further contextualizing the concepts and theories.

2.1 The Ontology of Concepts

Before introducing the methodology, it is important to briefly touch upon the understanding of the "concept" within the research. Although conceptual stability grounds the system of methodology, instead of functioning as a single identity-based ontological system, I understand the concepts as processual, multiple, emerging and

re-emerging within their relations. Therefore, I do not "apply" them, but work with, through, and even beyond them. Philosopher and social theorist Brian Massumi, provides a valuable approach to working with concepts:

> A concept is by nature connectible to other concepts. A concept is defined less by its semantic content that by the regularities of the connection that have been established between it and other concepts: its rhythm of arrival and departure in the flow of thought and language; when and how it tends to relay into another concept. When you uproot a concept from its network of systemic connections with other concepts, you still have its connectibility. You have a systemic connectibility without a system. (Massumi, 2002, p. 20)

Working with concepts by focusing on their relational, and connectible ends, I both affirm and/or negate the original versions of the concepts. In other words, the concepts could be extracted from their usual connections, and replaced within other contexts for creating exemplary forms that may/or not, deviate from their origin. The multiple possibilities of combinatorial permutations paves way to open-ended systems, inviting and highlighting the aspect of generative forms of experimentation and invention into the process of response-able sounding practice. This then means that the methodology should afford to work with such concepts through a process-oriented system rather than an end-point-oriented one.

In introducing the system of thought that runs through the dissertation, I will first present the overall methodology, and then discuss the plane in which all connections are made, unmade and understood, and finally, introduce a possible sonic practice within the plane.

2.2 Method and Methodology

Working with a multivalent system that holds together a plural set of agents, processes and outcomes, coherence is crucial between the methods that are adopted and adapted. In this particular research, I take in hand the methods as maps for action that are directed towards various purposes. These methods are guided by tools, and the set of agents expressing movement-in-relation, which also provide the main elements for coherence within the research.

The methodology of RC practice, breaks the linear flow of research, and makes up a modular form of research that creates a constant series of non-linear exchanges between the aural performativities. As a result, the methodology is a complex, processual, adaptive, and dynamic system. The plane in which all acts occur, is a multivalent one, affording to hold agents and acts, as they move between centers and peripheries. Working through constant motion and flux, the model deliberately subverts simple processes of composition, expression and interpretation. It does not aim to pin down and label, but to complicate and transform practices of musicking within this particular context.

The research works through methods of qualitative data gathering through means of autoethnography, as practiced within artistic research. In my writing, I aim to balance self-reflective commentary that describes my engagement strategies, together with the theoretical and conceptual framework. In such a method, there is no single, clear-cut, and primary data provider; data is gathered from various relations that surface within selves, others and discourses. This stance abandons goals to create a hyper-rational, fixed result, that is arrived solely through quantitative methods. Therefore, in the practice, the self follows the trail of breadcrumbs through the process, trying to be precise about the affective traces arising in the process of the RC practice. Accordingly, the work is not decided and shaped in advance. It is unveiled through creative and experimental thinking/doing where the process entails movements that occur consequently rather than sequentially. This is performed through a constant migration of theories of practices, and practices of theories; going through a loop of constantly thinking more and doing less, and doing more and thinking less. Such method aims to create complex modulations between processes.

A methodology that affirms practices of mobility, itself must be mobile. Therefore, the methodology is one that is built on flux; it is an experimental and exploratory methodology that highlights a desire for inviting uncertainty, practices of de-centering, embracing chaos, and inviting fragility in the system. As explained in the introduction, the methodological process is grouped under four main stages; see the stages and their movements in the practice at Figure 2.1 given below:

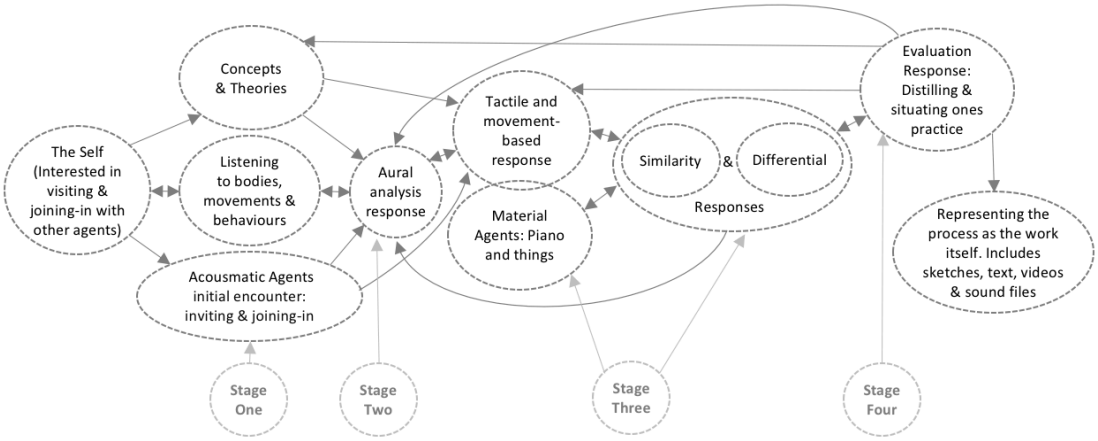

Figure 2.1 : Overall Process of Methodology.

I work locally and globally in each stage, always with the awareness of particularities of each stage, and how they are linked to the overall structure of connections. There is no single theory/concept that fits the same way for all cases. Therefore, the process-based nature of the methodology brings with it, the element of the unknown that proposes there is no single and right way of making decisions within the system. And consequently, each theory/concept works specifically according to the particularity of situation and approach at hand. This results in creating different engagement and evaluation strategies for each and every musical engagement with others. The self then, constantly moves in situations that require fresh responses, opening up planes for practicing response-abilities.

Now that the general understanding of overall systemic movements that generate connections are briefly introduced; let us shed light on the participants, the tools and categories of acts within this context, as illustrated in the Figure 2.1 presented above.

The participants are the agents presented in the introduction section; they are the selves, and others (humans, more-than-humans, and materials). The methodology scrambles the clear boundaries of the causality between the affecting agent and the affected agent, shaping how the agents are understood and behave within the research. Consequently, during the process, all agents are understood as fluid and multiple, they both do, and are done to; they are not fixed, and become again and again from within their relations (The understanding of agentiality is explained further in Section 2.3). These individual yet social agents (entangled in a relational network) then begin constituting a shared sonic habitat.

This type of fluidity also runs through the tools that guide the practice. The RC practice is realized through a series of aural evaluation and statements, which affords fluidity and multiplicity as it is based in a phenomenological approach. Aurality is framed by: A sound-based[16] approach, described through spectromorphological[17] vocabulary, and an embodied understanding where movements and a model of behaviors (similarity/difference) are interpreted in accompaniment with Temporal Semiotic Units. And finally, I frame my experience by means of autoethnography, as I trace my interpretations of relational movements. This stance embraces an always-awareness of imperfect translations that emerge through relational entanglements (Situated practices are explained in Section 2.4). All of the above-mentioned tools, also play a role to shape the aesthetic approach within my practice.

As seen in the Figure 2.1 presented above, the stages introduced in the previous chapter, determine the routes of my methodology. Each of these acts produce a set of outcomes, and then, re-negotiate the generated material through switching modalities, which, in return, feeds back to concepts and previously produced results. The whole dance is about exploring and crafting conditions for connections that matter for cultivating a response-able com-posing. Each mode/stage of production is considered both as a living presence on its own (existing locally, becoming within component parts) as well as within a web of dependencies (through a global perspective, becoming within entanglements with others). In order to better understand the methodology of the RC practice, next, the metaphorical plane that informs the methodology is introduced.

2.2.1 Situating the methodology within a metaphorical plane

As briefly introduced above, the process of the RC methodology is not interested in designating essences to fixed entities, nor is interested in naming origins, predictable trajectories, nor exact destinations for the process of com-posing. It is interested in

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[16] The term "sound-based" music is coined by the composer Leigh Landy to describe music that is based on a wide range of sound types that are outside of note-based organizations. This perspective provides equal ground to various sound types that are both pitch and more-than-pitch-based structures. Explained further in section 3.3.1.

[17] "Spectromorphology" is a term coined by Denis Smalley (1986) for describing sound shapes, based on an interaction between the sound spectra and the ways it changes through time. It is a descriptive tool for aural perception, aiding the listening situation, seeking to explain and analyze sounds, sound events, structures and space through an accessible set of descriptions. Explained further in section 3.3.1.

exploring and tracing types of movements and their meanings that occur during sonic relations, through a process-based and performative ontology.

In doing this, I visit some strands of Gilles Deleuze's thoughts, as he offers fruitful lines of thought to trace multivalent and process-based systems to explore differences-in-relation. Deleuze's philosophical approach has widely affected artistic research practices today; especially in the field of music, spanning from analysis to composition, from performance practices to interdisciplinary connectivities. His work stands at a juncture as a proliferating domain of production in today's artistic practices. As one of the prominent artist-researchers in the field today, Paulo De Assis (artistic researcher, philosopher and musician) states:

> For someone operating in the creative field of artistic research, which is by definition a "constructivist" field of activity (as it generates objects or events of artistic nature), a permanent resistance to principles and methods would be counterproductive, if not simply sterile. That's why philosophers like Michel Foucault, Gilles Deleuze, or Félix Guattari are so relevant to artistic research: they offer a possibility for thought and practice outside laws and axiomatic principles, but they also enable the positive fabrication of materialities issuing from intensive processes. (De Assis, 2018, p. 26)

In pursuit of an experimental artistic research practice that is based in a complex system of multivalent relational networks in sounding relations (such as the RC practice), working outside of "laws and axiomatic principles" offers a large-enough space for the artist researcher to experiment, and explore. In my practice, in exploring theoretical and practical possibilities for a response-able com-position model, I take in hand Deleuze's "plane of immanence", and his concepts "actual and virtual" that provide a stimulating place to start with.

2.2.1.1 The RC practice in relation to Deleuze's "plane of immanence"

In this section, I present an overall understanding of Deleuze's "plane of immanence"[18], and how it informs the RC practice. I explore how this plane could

[18] Deleuze calls his "Plane of Immanence", "Plane of Consistencies" or "Plane of Expressions" in his earlier writings.

shape and contextualize the way the agents, behaviors, relations, and results are understood, and enacted within the RC practice[19].

Deleuze's philosophy is based on flux, it is a philosophy that sees the world as dynamic, and life as constant creation that undergoes an ever series of change. Therefore, his writings are concerned with bringing movement to rigid ontologies, generating new theories, concepts and planes that afford constant flux. His concepts are open to change, and transformation with an interest in tracing emergences of the new, and how the new comes to be.

Deleuze talks about the impossibility of dual and dichotomous distinctions and introduces terms and concepts that work both together, and against simplistic binary divisions. These complex terms/concepts are not exactly pin-downable, and do not function in top-down, linear, and hierarchical manners of movement. Such a world affords a complex system of disjunctive concepts and acts, embracing differences that neither oppose nor resolve into one another. Working with and through non-resolved, multiple, and median positions, opens up a field for continual plane of relational, processual and generative acts; that evade absolute arrival points, and fixed labels. This median plane is where we will begin setting up the practice of cultivating response-abilities.

Introducing the grand scope and the depth of what the plane of immanence is, exceeds the scope of this dissertation; and to find the right entry point into it, within this limited section of the chapter is no easy task. I will briefly introduce an overall understanding of the plane, and then jump to the middle, by means of tracing various lines of thought used for crafting the RC model.

From the most general perspective, we can understand the plane of immanence as a metaphor for the realm where philosophers have done their work in. It is a set of parameters emerging underneath the action of creating concepts, and even making the creation of concepts possible. Deleuze in his seminal work "What is Philosophy" (1994) states: "it is a plane of immanence that constitutes the absolute ground of

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[19]As a practitioner, I work within the fields of composition, performance, and improvisation. I am not a philosopher, or a Deleuze scholar. I have read various works of Deleuze and Guattari, and studied works of Deleuze scholars presented within this dissertation; the observations and conclusions presented in this chapter are arrived at through my ongoing understanding and practice.

philosophy, its earth or deterritorialization, the foundation on which it creates its concepts" (p. 41). This plane is where concepts are connected within a system of concepts, organized and made sense in what Deleuze calls an immanent logic.

From a general perspective, Deleuze's plane holds together, and most importantly, affords mediation between two or more types of happenings. The plane is used to think of these happenings through the unpredictable, chance-based, and the chaotic as well as the orderly, structured, and the systemized. To understand the plane of immanence, let us continue by defining what it is not: by introducing the understanding of transcendence[20]; as Deleuze offers immanence to outgrow transcendental ontologies.

Transcendence is grounded in an identity-based ontological system. For the transcendent to function, it needs two or more substances. The transcendent point of view explains things through dualisms; where one thing is transcendent over the other. Transcendent forms of relation are about relations "to" something, implying, one is secondary to the other, i.e. creating order, where the lower order depends on the higher for its definition. Therefore, transcendence is a way to install hierarchy, and a linear reading where one is superior, and the other subservient. The benefit of a hierarchy when creating an ontological system is that it reduces the level of complexity. It allows one to pick and choose certain properties, label them transcendent, and hold them superior to other properties that function in a fixed, center-based system based on principles, and a set of laws.

Deleuze states that there is no absolute reason that one of these substances have to be superior and the other subservient, as in transcendental systems. Things that seem impossible to define, or the lower qualities end up being prime terrain for Deleuze to begin. The interest for Deleuze is exploring areas where the transcendent ontologies left holes and gaps. Deleuze states:

> There is not the slightest reason for thinking that modes of existence need transcendent values by which they could be compared, selected, and judged relatively to one another. On the contrary, there are only immanent criteria. A

[20] Deleuze and Guattari call transcendence first the "plane of organization" (1987) and later begin referring to it as "plane of transcendence" (1994).

> possibility of life is evaluated through itself in the movement it lays out and the intensities it creates on a plane of immanence. (Deleuze, 1997, p. 74)

Immanence therefore, abandons a hierarchical understanding, and works through heterarchical formations and decentered practices. It does function with various forms of order at times, however the orders do not prevail; they are constantly placed and re-placed due to various circumstances, and are always in movement. Unlike transcendence that is based on relations "to" something, immanence is about relations that are "in" and "of", as well as "with" something. It is about becoming-with-in movement through entangled multiplicities.

Deleuze recognizes that in things, and experiences of humans with things, there is an inevitable spectrum of both an "in"ness and "to"ness; and so offers various levels of immanence. He makes a separation between "radical immanence" and "immanence", stating that radical immanence points to a philosophy that is strictly built upon such relations that are "in".

In the RC practice, my aim is not to work for a radicality of immanence. In my practice I do invite dualities and hierarchies, yet only to scramble them yet again. I attend to recognize transcendental situations that arise in my practice, and when recognized, I re-position myself to move from and through immanent postures. I use immanent thought as a driving force of movement that shapes and re-shapes my acts within the com-position practice.

Working with-in such a plane, one experiences that one thought, event and concept may function differently from their original context of production when encountering and forming connections with another. Elizabeth Grosz (philosopher and feminist theorist) states that events and concepts of the plane do not occupy fixed positions, they are what Grosz (2017) calls "nomadic", acting freely and smoothly connecting, and disconnecting through relations. This draws us back to the "connective ends" Massumi was talking about (as introduced earlier); the matter of connectibility and its orientation is a useful way to understand the processual, and shape-shifting nature of concepts and events, emerging, moving with, and through the plane.

The RC practice, especially hones in on the directional, processual, generative and movement-based happenings the plane offers. Let us now look closer into the

processual and movement-based ontology, continuing a bit further in the path of Deleuze's immanence.

2.2.2 Understanding processuality within the RC practice

The RC model adopts and adapts various strands of Deleuze's understanding of processuality through his concepts "virtual" and "actual". Let us begin by laying out an overall picture of the "actual" and "virtual", and then move into how these two concepts inform the RC practice.

Put simply, Deleuze's "virtual" are probable realities that hold within them tendencies, and carry potential for "actualizations". The "actual" are particular realities that are summoned and realized. The "virtual" is always entangled with the "actual" and vice versa. Paulo De Assis explains:

> Without resembling the actual, the virtual nonetheless has the capacity to bring about actualisation, and yet the virtual never coincides or can be identified with its actualisation. The virtual is the whole set of forces, energies, potentials, and intensities that exist, that are real, yet that are not actualised in the here-and-now of the present. The actual are all the forces, energies, potentials, and intensities that are currently happening in the here-and-now of our presence. There is no actual without virtual, and no virtual that cannot be actualized. (De Assis, 2018, p. 28)

As Assis points out, the actuals are a set of circumstances that occur in the here-and-now (limited in space-time), they refer to what is happening in the present moment, through materialities and materializing practices; and are realized by individuals and bodies. The "virtual" is about an incorporeal potential, carrying a range of possible circumstances; it does not occur in the current now. It is understood in non-real-time dimensions, that are not limited in space-time i.e. in a here/there or past/future. In terms of how these concepts render movement, the philosopher Constantin V. Baundas provides a simple yet useful scheme: "virtual/real→actual/real→virtual/real". He explains:

> Becoming, instead of being a linear process from one actual to another, should rather be conceived as the movement from an actual state of affairs, through a dynamic field of virtual/real tendencies, to the actualization of this field in a

> new state of affairs. This schema safeguards the relation of reversibility between the virtual and the actual. (Baundas, 2007, p. 490)

The aspect of reversibility is key in movements and becomings in the RC practice. Although the acts in the RC practice are realized through a generative and accumulative manner, the following acts do not erase the previous ones, but always respond to them; even when they come to negate, or break what precedes them. Therefore, the system is not based on erasure but a form of addition, further supporting a both/and understanding that allows movements and making statements (actualizations) in specific space and time. In further understanding this double structure, let us briefly look into the notion of temporality of making, which informs how the notion of addition, and movements of reversibility are understood through an immanent plane.

If the ontology of immanence doesn't immediately make sense, it is because we are so used to thinking spatially and Deleuze isn't talking about a plane that could be understood in spatial terms. Grosz (2017) states that Deleuze's plane is dimensional rather than spatial, it does not have a volume of some sort; it is rather an orientation that aligns any concept, in any way, for any type of use. Therefore, one has to stop thinking spatially, and through object-based grounds, as if the plane is a container, and begin thinking through orientations and patterns that occur within the notion of time. And here, the linear view of temporality is also not very helpful. Deleuze's understanding of time in this context, follows Bergson's understanding of time (1988), where the past-present-future are not situated in the linear perspective of time. For example, the understanding that the past doesn't exist anymore in the present, nor the understanding that the past is something that has effects on the present from far away is not operative. Deleuze understands that the past is not in the domain of the present, yet exists in and with the present, where each holds their grounds as differences; yet, they are entangled. And this entanglement happens in a plane where one is not subordinated to the other. Therefore, past-present-future could not be thought of as separate and distinct static points; each change and morph, as they express themselves in time. So, from this perspective, time is not understood as a way to measure and connect particular points; asking us to get rid of the linear way of thinking. Instead, a much more useful way to think of time is through a fluid understanding that unfolds

through a dynamic system of movement. Let us tie this back to the "actual/virtual" through Baundas; he states:

> On the one hand, there is necessarily the present moment of actualization: the event 'happens' and gets embodied in a state of affairs and in an individual… Here the time of the event, its past and future are evaluated from the perspective of this definitive present and actual embodiment. On the other hand, the event continues to 'live on,' enjoying its own past and future, haunting each present. (Baundas, 2007, p. 491)

"Virtuals" and "actuals", as they oscillate, and accumulate in dialog, in Baundas's words "haunting" each new present, they create new tendencies that drive the dual movement, always generating a series of connectible ends. Working with these perspectives, in the RC practice, I adapt and adopt the "virtual/actual" within the methodology of the practice. I connect the "virtual" with the unactualized potentiality of social imaginations and the tendencies of the not-yet realized. And connect the "actual" with the process of acting upon these potentialities and tendencies, that produce situated expressions, creating limitations within space-time. However, as Deleuze expresses:

> Purely actual objects do not exist. Every actual surround itself with a fog of virtual images. This cloud is composed of a series of more or less extensive coexisting circuits, along which the virtual images are distributed, and around which they run. (Deleuze, 2002, p. 148)

Therefore, there is no "ideal" possible rendition of a "virtual" to the "actual", or vice versa. What informs the RC practice here is the multivalent positions and movements of these concepts; I work with these (by adopting and adapting them) within the methodology of my practice. Nanna Verhoeff (media scholar) and Iris van der Tuin (cultural theorist and feminist epistemologist) define "methodologicity" (2022) as the methodological work that concepts do. And the three concepts of Deleuze introduced here: the "plane of immanence", and the "actual/virtual", inform my methodology: The stages of the practice are contemplated on, then actualized and evaluated; and with each switch of modality with the practice, the preconceived results are re-evaluated again; and each of these processes pave way for new possibilities, constantly moving between virtual and actual through an immanent plane.

Finally, in further illuminating the concepts, and processes introduced so far, and to tie them back to the RC practice, it is useful to briefly touch upon the understanding of difference in Deleuze's world.

Deleuze takes difference in hand as an operator that enables movements and performances. Differences that exists within multivalent systems, are not static and passive things that sit still, unresolved. There is an energy that arises from differences, which paves way for motion that produces generative, creative, and dynamic processes (just as in the reversible and dialogic relation of the actual/virtual). The exchange and switch between difference, renders capable event-ness and potential performative forces that drive dynamics of becoming with-in-difference in every stage of the RC practice. The main set of differences that drive the RC practice are: self/other, switching between stages of production (modality translations), a dual performance response (similarity and difference response), and multiple outputs that include a variety of media. How these differences are understood, how they drive the energetic potentiality into one another, how they function, and produce, will be discussed in detail within the next chapter under their respective sections.

We have now set up the overall methodology for RC practice, that springs from a process and movement-based, relational and performative ontology, following strands of immanent thinking. This type of movement-based, entangled yet flexible processes of methodology, provokes growth; where new connectible ends and potentials pave way for further dialogue and negotiations that commit to understand and trace differences-in-relation. This way, the model sets up a practice for cultivating response-able capacity to live and negotiate in a world of difference, that is about participating to attend, care, negotiate, and co-create with differences. The next section, ties the conceptual perspectives introduced so far, with the matter of agentiality, as understood within the RC practice.

2.3 Approach to Agency and Agential Relations

In this section I explain agentiality, and agential relations as understood within the RC model. I look into both the agential postures of the self as selves, as well as observing, interpreting agentiality of others (human, more-than-humans, and materials) in relation. Throughout the chapter, I trace answers for the following questions: In the context of the RC practice, how may the self and the other be attended to, interpreted

and responded in a response-able context? How is the matter of entanglement understood between agents? In what possible ways may I activate and reactivate (through a renewed sense), the agential definitions and relations through thoughts and actions within my practice? The aim here is to widen the imagination, and consequently, the relational possibilities for a response-able com-posing. Before diving into the main subsections, I briefly explain the notion of self/selves and self/other that will provide an entry point in which to discuss the agential positions of both the self and other.

The Self/Selves

I my practice I "go visiting" others by generating various actualizations through the stages of the RC practice that switches modalities. The different forms of production resulting from stages, could be read as versions of the self. By differentiating the self from itself, a field for exploring otherness within selves become possible. Evading a single label of identity, the self becomes subject to itself; positioning oneself in different postures, is an important and valuable feature of response-able practice. This type of movement-based and generative practice opens up a self-reflective practice, that is useful for moving beyond one's own habits, and in revealing new ways of engaging and thinking about oneself, and its perceptions, thoughts, actions and relations.

Following an immanent path, the RC practice adopts an understanding of a self that is not reduced statically to one function and one position. Through each modality, the self let us go of one's previous self, and responds to it through another lens. By constantly re-positioning oneself, the self practices re-distributing and disorienting one's own center of agency. The selves then, become players within a network of activity together with others. Next, let us now look into relations between selves and others (as in humans, more-than-humans, and materials).

Self/Other

The historically conventional conception of subjectivity foregrounds concepts of separation and self-location that results in clear boundaries of the self and the other. If we accept this posture, right off the bat then, by using the words, self/other, our point of entry will be through a seemingly static and binary structure. To define what is essentially inside, automatically brings us to the world of an inside/outside duality.

Therefore, in what context this differentiation takes place, is of crucial importance; begging the question: how is such duality to be treated within the practice?

As introduced in the previous section, the response-able practice is about nurturing differences; and this is done through a perspective that embraces dual articulation. The self/other appear initially split with one another (as either/or), yet also dependent on one another in-relational-becoming (entangled). This proposes that such practice, in the context of understanding agencies, is not about radical separation; but about separating for the sake of making connections. It is about tracing relational resonances that appear in the act of differentiating, and vice versa. Starting from such a complex entry point where inside/outside, singular/multiple are blurred, let us bring in Barad's understanding of agency, and agential performance; as her approach to agentiality and relationality is fruitful to further explore an ever-changing and contingent ontology of becoming that sits at the heart of the RC practice.

Barad herself does not draw on the work of Deleuze, however in today's scholarship, many scientists, social scientists and artists read various strands of the two scholars works through one other (Murris and Bozalek (2019), Thiele (2016), De Assis (2018)). In the following section, I draw upon various connections made by these scholars, where Deleuze's thought (that is introduced so far), is traced within Barad's relational ontology.

In the next section, to further dig into the epistemic and ontological positions of difference as a driving force for becoming-through-relation, I visit Barad's concepts of "agential cuts", "cutting-together-apart", and "agential realism".

2.3.1 Working with differences through a "cutting-together-apart"

Beginning to act from within difference, right off the bat, we start with a boundary specification. The acts of differentiating and expression of difference, performs what Barad calls "cuts". Each thought, choice, and act of self, functions as a cut that limits and shapes the phenomenon (relation between observer and observed).

Barad states that "agential cuts" are situation-bound acts, emerging as partialities in particular phenomena occurring at a specific point in time. They stabilize various agential components. We may think of these cuts as acts that bring forth enactments of "actualizations" (of Deleuze). Here, I follow a strand that Thiele opens up, when she is gesturing towards the connectivities of Deleuze's immanence with Barad's cut.

According to Thiele (2017), "…immanence is at once the idea from which all actualisation takes place and the process of actualisation itself that only ever creates or 'cuts' the plane" (p. 309; my emphasis).

In Barad's point of view, the agential cuts never exist alone, they are always situated in a dual movement of simultaneously cutting, and coming together; she calls this "cutting together-apart". She states (2012), "Agential cuts do not mark some absolute separation but a cutting together-apart, "holding together" of the disparate itself" (p. 46). We can think of this along with the space-time functioning of immanent thought introduced earlier: where boundaries between space and temporality, here-there, then-now are not clear-cut, absolute boundaries. Just as in the understanding of difference within the plane of immanence, here, the dual event is thought of as occurring on one level and happening at once. Therefore, within the connective level, the cutting-together-apart is never inanimate; it is very much understood within continuous fluctuation of movements-in-becoming. Thiele states:

> Given that actualisations always only 'cut' the plane that at the same time extends them into spacetimemattering (to speak with Barad again), change and/as becoming is all there is. (Thiele, 2017, p. 130; my emphasis)

Under this light, enacting cutting-together-apart are forms of performing phenomena through difference. By adopting and adapting these concepts, and drawing intersections between them, I position the response-able practice on the immanent end of becoming-together. This is done by further situating the practice within paths of Barad's "intra-activity" and "agential realism".

2.3.2 Towards an Entangled Understanding of Being, Knowing and Acting

This section further explores and experiments with various resonance points of immanence together with agentiality and relationality. Let us begin with Barad's neologism: intra-action. In the more common term interaction, entities exist before they encounter one another; they maintain a level of independence. In Barad's intra-action, these entities emerge within their relationship, not outside of it. Barad talks about a mutual entanglement between the observer and the observed, called "phenomenon" in physics. She states (2007) that "A phenomenon is a specific intra-action of an 'object'; and the 'measuring agencies'; the object and the measuring

agencies emerge from, rather than precede, the intra-action that produces them" (p. 128).

This stance presupposes that these entities come into existence through their ability to act. Relation and action become important factors pointing to the understanding that agencies are not fixed and separable ontologically. Here, becoming starts from within relational movements. Therefore, the relational acts occurring simultaneously by mutual presupposition, get rid of a static and essentialized understanding of self/other as well as active/passive roles. This lines up with Deleuze's understanding that the moments of actualization are not effective prior to their enactment, they emerge through action and movement.

Immanence, rejects linearity, sets up a situation where more than one agent is simultaneously, and mutually listening and responding. From this perspective, intra-action becomes a possible apparatus that is complementary to immanent thought affording to scramble the causality of affect/affected, the active/passive, therefore the hierarchical binarism. Barad explains (2007), "Crucially, agency is a matter of intra-acting; it is an enactment, not something that someone or something has. Agency is doing/being in its intra-activity" (p. 235).

Agency then, under the light of intra-action becomes a dynamic relation of forces that is not considered as something static, like an individual property (something that can be possessed), but an ongoing series of co-performative actions, situated and emerging from situations, circumstances in movement and performance. This proposes that being comprises a series of potential energetic forces that are both inherent, and always emerging within the relation of self with self and other. The philosopher James R. Williams in explaining Deleuze's immanence, sheds light on the understanding of connections within a relational ontological perspective. His explanation further illuminates the perspective for understanding agents and their relational acts. He states:

> Deleuze's immanence, is about embracing differences and identification of these differences but is mainly interested in shedding a spotlight on connections. And moreover, is a connectivity between relations and not between different identities. This is because an external principle would be needed to ground those identities (for example identity depended on the human

> mind - thereby setting it up as transcendent). (J. R. Williams; in Parr, 2005, p. 126)

Connections "between relations, not between identities", is a key point for the RC practice, as it is first and foremost interested in tracing what the effects and acts that emerge from relational differences are. Both immanent thought and cutting-together-apart offer non-linear, and non-hierarchical, forms of moving with-in pluralities, and tracing effects of differences. Following these pathways, the RC practice works with the processes of differentiation through a commitment to negotiate differences, not as oppositions but rather for generating patterns of difference, and tracing various effects of these patterns. Looking at possibly contradictory differences from a positive angle, implies there is more to discover about the agents, concepts, acts and results; and rejects all-too simplistic, singular definitions.

From this lens, instead of trying to put agents, theories, concepts, acts, and ideas against one another, —as transcendental frames of references do— the practice at hand, follows an immanent reading where the boundaries of differences are made, re-made, broken and blurred in the act of relations, actualizing, and evaluating them. Here the idea of difference as a problem to be resolved is dismissed; differences emerge as values of reconfiguring connections between differences.

In further contextualizing and situating these perspectives within the RC practice, let us finally take a look at Barad's "agential realism". In what Barad calls "agential realism", matter and discourse (in the enactment of phenomena) are "intra-active" therefore inseparable. Here, she points that one's own reality is not fixed, and emerges over and over again from enactment of phenomena. The RC practice takes Barad's phenomenological understanding of agential realism in hand as a methodological apparatus. Each actualization within the RC practice, is known, produced and becomes through phenomenal acts within a performative and entangled web. Barad always reads epistemology together with ontology, she explains:

> Practices of knowing and being are not isolable; they are mutually implicated. We don't obtain knowledge by standing outside the world; we know because we are of the world. We are part of the world in its differential becoming. The separation of epistemology from ontology is a reverberation of a metaphysics

> that assumes an inherent difference between human and nonhuman, subject and object, mind and body, matter and discourse. (Barad, 2007, p. 185)

As explained in her quote above, Barad emphasizes an onto-epistemological outlook in agential realism. Thiele, in her combinatorial reading of Deleuze's immanence with a relational ontological position of Barad, points out to a crucial matter: Coming from Deleuze's entangled questions of "who? how? where and when? in which case?" Thiele states that in order to co-join the ontology with process, there shall be a switch in perspective. According to Thiele (2017) "[a]ctualising (the plane of) immanence is only ever a process of becoming when the 'what' in question intra-acts with the 'how to' — that is, how to become, for whom, when, in what ways, in which cases" (p. 128; my emphasis). This brings into the discourse, the matter of responsibility and the consideration of consequences produced by each situated actualization.

Such an entangled and holistic thinking calls upon Barad's "ethico-onto-epistemology". Barad develops the onto-epistemological outlook (presented above), by adding an ethical lens to the being-knowing. She suggests that listening and responding is always already an ethical stance. And her neologism "ethico-onto-epistemology" weaves together ethics, ontology, and epistemology. She explains:

> Researching phenomena, then, is a methodological practice of continuously questioning the effects of the way we research, on the knowledges we produce. This unfolds itself as an ethico-onto-epistemology of knowing in being. Ethics is about being response-able to the way we make the world, and to consider the effects our knowledge-making processes have on the world. (Barad, 2007, p. 381)

In my practice I recognize that composing and listening practices along with reading and writing are ethico-onto-epistemological practices, and I build the RC practice upon this recognition. As the RC practice "goes visiting" others, to form response-able sonic relations through valuing, being, and knowing through exercising acts of caring, daring and sharing, it is inevitably interweaved with Barad's "ethico-onto-epistemological" approach. In the end, how we listen, compose, engage with sound reveals the way we think about the world, and our relations within the world, reflecting who and how we choose to be in the world.

To sum up the orientation of the RC practice introduced until here, it could be said that "going visiting" —in pursuit of creating response-able co-creation— is in strong friction with enclosed systems that have lists, prescriptions, and singular identities. And so, such approach works with situations where one does not know the answers in advance. Through this not knowing, arises the potential for cultivating capacities for learning to inhabit a shared sonic habitat through response-able acts that consider and trace consequences of one's own actions in the world.

Now that some of the main strands of perspective that inform and construct the methodology are introduced, with the next section 2.4, I introduce the final conceptual guidelines, offering a set of attentional strategies and postures for the self to move through a multivalent and complex methodology.

2.4 Postures of Sounding-with in the Act of "Going Visiting"

In this section, in line with the stances introduced until here, I explore some guiding perspectives to realize thought and actions in difference-attentive modes for a "ethico-onto-epistemological" RC practice. I position my practice within an affirmative and generative epistemology, inviting Haraway's "situated knowledges" (1988), "speculative fabulation" (2016) and "polite inquiry" (2016). I explain these postures and how they contribute to the self, the other, and the shared sonic habitat in the RC practice.

2.4.1 Going visiting "politely": An affirmative and generative epistemology

In establishing a practice within an immanent plane through an intra-active view, we saw that the borders between differences are conductive, and the pattern of behaviors and relations are not clear-cut and foreseeable; the self is driven to move within spectrums and possibilities. We saw that the RC practice functions within a plane where the orientation is not towards predictable trajectories, but is about indeterminate and accidental uncovering. Such posture entails staying and responding from within tensions of the not-yet-known, and interference patterns that occur from differences. This stance of the RC practice resonates greatly with what Haraway calls "Staying with the trouble" (2016) —which is also the title of her book—. She explains "staying with the trouble":

> Trouble is an interesting word. It derives from a thirteenth-century French verb meaning "to stir up," "to make cloudy," "to disturb." We –all of us on Terra– live in disturbing times, mixed-up times, troubling and turbid times. The task is to become capable, with each other in all of our bumptious kinds, of response. Mixed-up times are overflowing with both pain and joy with vastly unjust patterns of pain and joy, with unnecessary killing of ongoingness but also with necessary resurgence. The task is to make kin in lines of inventive connection as a practice of learning to live and die well with each other in a thick present. Our task is to make trouble, to stir up potent response to devastating events, as well as to settle troubled waters and rebuild quiet places. (Haraway, 2016, p. 1)

In Haraway's words, in order to "become capable with each other", within "inventive connections", and learning to make-with one another, all starts with attention. In order to go visiting, attention, and intention to notice are key, as they rely on the premise that one shall perceive enough to be able to care enough, and go visiting. Attention requests one to lift judgment that assumes to know the other before relation, and not to preconceive what to expect in advance. Such perspective paves way for a plane where agents do not overdetermine nor underdetermine one another but attend continuously to one another, intra-actively. In the end, setting up, and fixing boundaries by means of judgment, is about reducing the bandwidth of attention. Haraway practices forms of "going visiting" in her own work, and as a way to visit, to stay and respond, she spells out that:

> Visiting is not an easy practice; it demands the ability to find others actively interesting, even or especially others most people already claim to know all too completely, to ask questions that one's interlocutors truly find interesting, to cultivate the wild virtue of curiosity, to retune one's ability to sense and respond–and to do all this politely! (Haraway, 2016, p. 127)

"Politeness" is a key word here; the politeness Haraway talks about is not about manners but rather, a means for onto-epistemology. It is a posture in engaging with others; one that is in strong friction with transcendental modes of thinking. A "polite" practice rejects perspectives of objectification, where the listener, gazer, doer projects and imposes one's own desires and fantasies onto the listened, gazed; which assigns hierarchical relations, d more importantly static active/passive roles and boundaries to

agents. Holding a dissonance with the primal reflex to domesticate, and control the unfamiliar/the other, into the point of familiarization, a polite practice is about inviting the tension, dissonance, divergent, non-standard, unrepresentative and unknown that arise from intra-action. This way, the self moves away from entitlement, opening up for intra-active movements that pave way for negotiations. Therefore, the self always moves with the awareness of two sides of the relation: if the self is in relation with the other, the other is in relation with the self. If both parties keep on questioning each other, (or at least the self is aware that the other is also questioning the self as well), something might happen; and this something might not have come about otherwise.

By maintaining the unknown, the multiple, the tension, the dissonance and the divergent, and moreover, affirming working with them, allows them to be driving forces for making a response-able com-position practice possible. Affirmative practices are not about agreeing; they are about keeping a critical lens receptive to understand and respond generatively, through a non-assertive stance. The RC practice then is realized through various movements that include both taking control, and letting be; in the meanwhile, listening/tracing what such movements do, attentively. From the poietic angle, working from within such space, give rise to possibilities to produce multiple and immanent actions, becomings, belongings, relations and co-creations. Informed by all these parameters, the act of "going visiting" of RC practice, orients itself to the act of offering: offering attention, offering acts, and offering responses. By diffusing sole pre-occupation with self, it opens up the possibility for true response-able com-posing, paving way for a practice that could work with others in a lively and pulsing, multivalent space.

With the next section, I propose a process (a how) for the self to live and present a situated actualized result in the practice; and explain why producing a partial and situated result (that says something from a specific time-space-body) is important, after the self had explored multivalent perspectives, acts and results through generative processes. In doing so, I follow perspectives and paths opened up by Haraway's "speculative fabulations" and "situated knowledges".

2.4.2 Working with speculative fabulations, the partial and the situated

As mentioned in the previous section, the RC model does not begin with an idealist model of agents; it is interested in attending to the other by listening into the

ambiguous signs of expression that emerge from within relation. And in moving towards answers and traces, the responses of self are generated through an examination of lived experience. Here an autoethnographic narrative becomes important, not only in tracing how narratives are constructed, but also how these narratives function as tools to shape the thinking, listening and sounding. In this sense, stories matter; and so, they are held as accounts, and detailed explanations of being, knowing and doing that emerge with-in lived experience. In the RC practice, storying follows what Haraway calls "speculative fabulations".

> I look for real stories that are also speculative fabulations and speculative realisms. These are stories in which multispecies players, who are enmeshed in partial and flawed translations across difference, redo ways of living and dying attuned to still possible finite flourishing, still possible recuperation. (Haraway, 2016, p. 10)

Speculative fabulation works with the duality of both speculating, (theorizing concepts and ideas), and fabulating, (inventing and sounding stories). This stance opens up a specific type of relational plane; in understanding this stance, let us visit what Haraway calls a "generous practice". In the quote below she explains the practice through the practice of Vinciane Despret's (physchologist and philosopher of science, especially known with her work in the field of in animal studies):

> Despret is not interested in thinking by discovering the stupidities of others, or by reducing the field of attention to prove a point. Her kind of thinking enlarges, even invents, the competencies of all the players, including herself, such that the domain of ways of being and knowing dilates, expands, adds both ontological and epistemological possibilities, proposes and enacts what was not there before. That is her worlding practice. She is a philosopher and a scientist who is allergic to denunciation and hungry for discovery, needy for what must be known and built together, with and for earthly beings, living, dead, and yet to come. (Haraway, 2016, p. 127)

Within the RC practice, the acts of "enlarging and inventing competencies" of others and selves, come to life as autoethnographies that inform sounding narratives. The speculations pave the way for practical, situated, and consequential fabulations informing the aural/musical relations and results. Therefore, in RC practice, as the self

entangles with others in relations, works through both discovery and invention, that informs co-dependent and entangled behaviors.

The response-able self accepts, what is being listened to is always an incomplete account of the other, and that the sonic appearances of the other, are in fact, forms of fabrications of the self. As introduced with the intra-active stance, in relations, there is a two-way transmission where a series of interference patterns emerge. Therefore, both the other and the self, undergoes forms of translation, transformation, including loss, addition, expansion and limitation during their intra-active relations. In the following quote, quite in line with immanent thought, Barad states:

> There is no I that exists outside of the diffraction pattern, observing it, telling its story. In an important sense, this story in its ongoing (re)patterning is (re)(con)figuring the self. The self is neither outside nor inside; it is of the diffraction pattern. Or rather, this self that is not I alone and never was, that is always already multiply dispersed and diffracted throughout spacetime (mattering)…in its ongoing being-becoming is of the diffraction pattern. (Barad, 2014, p. 181-182)

However, as entangled selves and others become in-relation; as the story is made and told, it directs, guides the relations, narrowing possibilities, and arrives at acutalizations, producing one result, and not another. Therefore, stories situate movement. Here, I trace paths laid out by Haraway: what she calls "situated knowledges" (1988).

Haraway formulates "situated knowledges" by explaining that understanding and acting from within each situation is always embodied; and that acts are tied to bodies, geographies, economies, cultures and historically specific perspectives. They are partial. Although they are partial, she states that situatedness does not function as to simply produce itself elsewhere, but it functions to open-up planes for the unforeseeable and the connectible ends to emerge; which is very much in line with immanent thinking. As Thiele, in explaining the continual and immanent movement in Deleuze and Guattari's perspective, states that, for them, "[n]ot the discovery of essences is the incentive to do philosophy, but the continual problematizing and providing of a solution to the posed problem (and there always is one), without ever envisioning an end to the immanent processes of becoming itself" (Thiele, 2017, p.

130). Tying this back to Haraway's reading of situated practices as connectible ends, she sees results of situated practices as an entry point into creating alternatives to the beaten paths of convention. She explains that:

> Situated knowledges are about communities, not about isolated individuals. The only way to find a larger vision is to be somewhere in particular… rationality. Its images are not the products of escape and transcendence of limits (the view from above) but the joining of partial views and halting voices into a collective subject position that promises a vision of the means of ongoing finite embodiment, of living within limits and contradictions-of views from somewhere. (Haraway, 1988, p. 590)

"Joining partial views", and learning to live with "limits and contradictions of views from somewhere", makes up the affirmative ground for sounding stories with-in differential coming together in RC practice. Until now, in the dissertation, I have highlighted multivalences, movement between spectrums, and open-ended thinking along with generative perspectives; however, by introducing situated practices, as they actualize and bring pseudo-arrival-points into the discourse, are essential for the immanence as practiced within RC practice. As stories situate, they live from somewhere (situated in time-space-body) and not from another place-space-body, this is key to evade falling into the trap of relativist postures. Haraway stresses the danger of the relativist standpoint:

> Relativism is a way of being nowhere while claiming to be everywhere equally. The "equality" of positioning is a denial of responsibility and critical inquiry. Relativism is the perfect mirror twin of totalization in the ideologies of objectivity; both deny the stakes in location, embodiment, and partial perspective; both make it impossible to see well. Relativism and totalization are both "god tricks" promising vision from everywhere and nowhere equally and fully, common myths in rhetoric's surrounding Science. But it is precisely in the politics and epistemology of partial perspectives that the possibility of sustained, rational, objective inquiry rests. (Haraway, 1988, p. 584)

With the RC practice, I make statements about listening, performing and composing, where I explore and ground my observations and experiences in empirical data. I want to avoid a relativism that paralyzes researchers/artists from making any conclusive

remarks and statements about music. Situated practices allow actualization and articulation of the entangled questions "who? how? where? when? In which situation?". This way, it is possible to hold oneself accountable for one's own actions, and for the consequences of these actions. Haraway's and Barad's understanding of response-ability (and for that matter, responsibility) introduced earlier, and adopted within the RC practice, is based on this premise.

Haraway (1988) states, "only partial perspective promises objective vision" (p. 583; my emphasis). Here we shall remember that Haraway's understanding of objective is within the context of feminist objectivity. She explains that, "Feminist objectivity is about limited location and situated knowledge, not about transcendence, and splitting of subject and object" (ibid.). In her article "Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective" (1988) she reclaims the historically loaded, conventional, binary, and top-down working notions of objectivity. She gives privilege to partiality, as she suggests that this position is dynamic and mobile, providing a useful ground in which to practice non-binary, non-centralized, non-essentialist practices. She states:

> Situated knowledges require that the object of knowledge be pictured as an actor and agent, not as a screen or a ground or a resource, never finally as slave to the master that closes off the dialectic in his unique agency and his authorship of "objective" knowledge. (Haraway, 1988, p. 592)

In situated postures, as proposed by Haraway, the self opens up a world of partial expressions through a heightened engagement with-others, without falling into the trap of relativism or authoritarianism. In providing further context to understanding situated postures as understood within the RC practice, Thiele's, explanation of Barad's cut is useful:

> I see Barad's posthuman(ist) ethics of mattering as making a contribution in precisely this sense: to both do justice to the difficult and demanding quest to follow through the entangled nature(s) of nature(s) in ethico-onto-epistemological terms, and yet also not to stop short in producing a specific cut herself, instigating certain (and not other) worlding visions. This procedure cannot but create theoretical tensions, as it is paradoxical in both its affirmation of indeterminacy and specifically cutting-together-apart. (Thiele, 2016, p. 5)

The RC practice, aims to do just this: affirming working through paradoxical situations, and the type of tension Thiele talks about. Therefore the stories that are generated in the RC practice are understood as generative tensions. Haraway states that situated knowledges build complex contact zones with one another; and through such complex forms of connection, everybody in the contact zone is transformed by the engagement; so that one does not dominate the other.

From this perspective, the practice attempts to know the relations and the other as closely and intimately as possible, along with one's own epistemic position with all of its limitations and partialities. This way a differential co-production is sustained, through affirmative, generative stances tied to specific body, space, and time dimensions.

As RC practice is an artistic research, a self-reflective methodology prevails throughout the process, and everything is sifted through various relations and interpretations of the situated positions of self. Recognizing this, the process places the self within a series of contextualized acts, and these selves in return, situate the work within a context, and allows it to make sense from a particular angle. What the self produces through situated points of views, are as crucial to the process, as much as the concepts and the plane in which all the concepts function.

The possibilities of outcomes and for what could be learned from within these partial yet open systems are voluminous. Situated within immanent thought, the relational stories that are produced within the RC practice, discover and invent, they aim to open up new movements, and new dialogues, and keep on moving within differences in intra-active motions. This position requires leaning in to listen, attend, to care, to negotiate "politely", being responsive, responsible, explicitly expressive, and constantly on the move. This, I argue, is a condition for ongoingness of the response-able practice.

Now we have covered the basis for understanding the multivalent plane and its entangled relations within RC practice, to complete this posture, we shall introduce one last perspective in understanding agency: corporeality. As explained above, situated acts are tied to bodies; the next section introduces how embodied agentiality is understood, as well as how it informs and affects the practice.

2.4.3 A corporeal process of knowing-in-being

The situatedness lies therein the embodied subject, and the RC model understands agency through actively participatory bodies, entangled within a series of social activity. Before explaining how and what the body is understood within the RC practice, let us briefly walk through the conventional mind-body problem.

For most of the historiography produced within the academy, there has been a suspicious outlook on the body. This stance comes from the Cartesian mind-body divide, where the mind has been privileged over the body. In the Cartesian divide, the physical and mental realms are ontologically separate, and could be further categorized as mind vs. matter, consciousness vs. physicality[21]. As a result, we find a transcendental understanding where these two are placed on a hierarchical structure where one is granted more power and prominence. And so, we see that throughout most of our written history, mind is accepted as the highest, and the noblest agent, overthrowing the value of the body. Today we know very well that this explanation is problematic, and that it fails to explain the complex web of interconnections and the constant cooperation between the two.

Relying on the premise that the mind is embodied, and the body is intelligent, I make a distinction between body that uses language, and body that moves and touches. Both think, and are embodied; however, they think and express thought differently. I think of the body that uses language, and body that touches/moves, as modalities that are parts of a holistic kind of thinking/knowing. Both modalities are used and expressed in different stages in the RC practice (modality translations are explained in Section 3.1).

Affirming that thoughts are inscribed within the moving and touching body, but it knows and thinks differently than of words, within the RC practice, there is a constant movement of testing the hunches of the body, together and against with the theory that uses language, and vice versa, producing an active dialogue between the two. In this regard, tracing what is felt, intuited, empathized, and physically enacted by participative bodies become as equally important data as the objective fact, theoretical ground, and categorizations of factual data. In the RC practice (as in all artistic research

[21] The mind-body problem is commonly discussed in relation with Cartesian duality developed in the seventeenth century by Rene Descartes (1536-1650).

involving any level of performativity), embodiment and its experiential knowledge gathered by knowing-in-action is essential means for musical co-creation. The RC practice invites —and furthermore— depends on the capacities of the body to know-in-action, valuing visceral levels of information. The moving/touching bodies thinking beyond language and speech, have potential to express pre-articulated thought; as they know and expresses what they know differently. Through gestures, the body does things rather than saying them, performing in the immediacy of a situation.

From various practices and disciplines ranging from biology, gender, political and social theories, we know very well today that embodiment situates us. Bodies are forms of recording technologies; they obtain information and produce knowledge. They inform the epistemic process, as they produce and express situated, partial information. The composer, sound artist and performer Guy Harries comprehensively states:

> The body is at the core of social activity. Through our bodies we experience the world, interpret it, and interact with each other. Some aspects of our social, cultural and personal lives rely mainly on the experience of the body: birth, death, pleasure, risk-taking. Our perception of the body is used as a regulating concept in society: with governing powers offering shelter and protection or punishment via confinement or pain. Performance incorporates these personal and social resonances, making use of a premise that is known to anyone human as a common language embedded in one's body. (Harries, 2011, p. 25)

The RC practice recognizes this holistic understanding of the body as a container, and invites the thinking and knowing of the body into the practice, to express —through a messy network of visceral— information it gleans, and enacts with others in relations. As the RC practice is built on relationality of human, more-than-human as well as material agents, in further establishing the understanding of corporeality and agentiality, with the next section, I end this chapter by introducing agential materialism as understood within the model.

2.5 An Agential Materialist Approach

This section hones in on the topic of material agency, and introduces what and how material is understood, and collaborated-with, in the RC practice. Recognizing both

the human, and material as actively participatory bodies, I ask what might working with agential materialist practice do to the self, the material and the practice itself?

Material, in music making practice can mean many things: from physical material things that could be categorized under conventional and non-conventional musical instruments, to digital interfaces, from sound itself as material vibrations, to the recorded sound file; or it could come to signify more abstracted notions of material like notes, gestures, durations, pieces, and the list can go on. Within this dissertation, I limit the understanding of material to physical acoustic objects only. And specifically, in my case, to my own musical instrument: the piano and various objects that are placed within its body (see Section 3.4.1.2 for the group of selected things).

Working with agential materials, I follow an experimental and rather unconventional view of adopting and adapting strands of new materialist thought into musicking practices: between human and musical instrument. In such a relational field, I attend and explore agential acts between human (musician) and material (instrument). The following section explores various types of potential consequences such thinking/doing might produce.

2.5.1 New materialism: Relations between humans and musical instruments

The historically-conventional definitions of object comprise of the view that objects are attributed agency by a human. This follows a hierarchical, top-down, and transcendental perspective and process of engagement, where the ontological status of the object is externally bound. The anthropologist Tim Ingold states that the historically-conventional approach to understanding agency of material is the main problem. He explains:

> More generally, I suggest that the problem of agency is born of the attempt to re-animate a world of things already deadened or rendered inert by arresting the flows of substance that give them life. In the EWO [environment without objects], things move and grow because they are alive, not because they have agency. And they are alive precisely because they have not been reduced to the status of objects. (Ingold, 2010, p. 7)

Usually the more dominant normalizes the other, and as in historically-conventional definitions of object is externally bound, the one-way relationship between human-object becomes normalized. As a practice interested in decentralized engagements and

immanent processes, with the RC practice I aim to move out of normalizing practices, and keep both subject and thing abnormal. From this perspective, working with agential materials, the RC practice starts from a place that does not assume that inanimate objects are "lifeless". In such pursuit, I visit new materialist practices.

New materialism suggests that material is not static and stationary; and it has emergent properties that carry the capacity to cause changes in our action and engagement with them. Therefore, it enables a dynamic relation between the object and subject rather than a prescribed understanding of material that is static and passive, therefore could only be controlled and manipulated in the engagement process.

There are various understandings when it comes to new materialist practices. New materialist practices prevail in the visual arts, but in the domain of music, it is still in its infancy. Although still in its infancy, the agential understanding of objects/instruments within field of sound practices are quickly becoming an emerging field, as it offers a rich plane for relational onto-epistemologies of sound-engagements (see Pickering, 1995, 2010; Ingold, 2008b; McLaughlin, 2014; Davis, 2019). In this dissertation, I follow feminist new materialist strands where the matter of performativity of agency lie at the heart of the practice. I specifically follow Barad's view, which is especially interested in intra-active thinking of matter as an agency. Let us remember briefly that Barad (2007) stresses that agency is not something inert, but an action, it is empirical, it is bodily production, and it is enacted through intra-actions (p. 389)[22]. She states:

> Matter, like meaning, is not an individually articulated or static entity. Matter is not little bits of nature, or a blank slate, surface, or site passively awaiting signification… matter is substance in its intra-active becoming–not a thing, but

[22] As mentioned earlier, the notion of active, empirical, bodily engagement with non-humans, also run through the work of Haraway. Haraway's practices consider agency in both subject and object. Bruno Latour's Actor Network Theory (ANT) resonates strongly with Haraway's and Barad's understanding of human/non-human relation and the understanding entangled becomings. Latour expresses a network field inhabited by and enacted intentionally by human and non-human agents with no central power-figure playing an essential role; he calls this "distributed agency". Distributed agency is where agents become together, through a network of relations (Latour, 1993, p. 261). On a final note, Peter Wolfendale's Object Oriented Ontology (OOO) also has many intersections with both new materialist and ANT practices, however within the scope of this dissertation I will leave both ANT and OOO left unexplored (to be explored in future studies) and take in hand the entry point of Karen Barad.

> a doing, a congealing of agency. Matter is a stabilizing and destabilizing process of iterative intra-activity. (Barad, 2007, p. 180-181)

This type of movement and performativity of matter, has quite a lot of intersections with Ingold's understanding of material. He uses the word "thing", instead of the word "object" as he refers to Heidegger's influential essay "The Thing" (1971). Un-tackling the differences between thing and object, he states, allows him to move away from the "western historical" thought that has passivity and inert characteristics assigned to the object. Ingold expresses:

> The thing, by contrast, is a 'going on', or better, a place where several goings on become entwined. To observe a thing is not to be locked out but to be invited into the gathering. We participate, as Heidegger rather enigmatically put it, in the thing' thinging in a worlding world. (Ingold, 2010, p. 4)

This notion of being in movement, of joining-in with, and to participate with the thing in its processual becoming ("thinging"), is very hand in hand with Barad's intra-action, in that, it does not assume fixed entities prior to their relations; it reads relation as a pre-condition to becoming. In the dissertation, I use the word "thing" instead of "object" to help override historically conventional scripts (as mentioned above) and to highlight the ongoing agential understanding of material.

As Barad states (2007), in new materialist perspective, matter does not sit "passively awaiting signification", very much in line with her feminist epistemic understanding of the other. And Ingold (2010) states that material "is in the opposite of capture and containment, namely it is in discharge and leakage, that we discover the life of things" (p.9, my emphasis). Ingold's "discharge and leakage" just like Barad's intra-action, is about a plane where boundaries are conductive, and practice is about the continuous movements of decentering and centering of both parties. Moving with, in, and through these relational movements, observing what these movements produce affords a plane to work through immanent modes of production.

We have now defined and explained briefly the basic stance for human-material relation as adopted within the RC practice. The RC practice then acknowledges and explores possible processes of onto-epistemological production together with material; affirming in-practice, that knowledge production is not something that is solely reserved to humans. Throughout my practice I pose the questions: How can I think,

experience, and articulate an instrument-human collaboration in the making, where the instrument equally plays the human? How do I understand and develop techniques in interacting with these things to explore and uncover certain musical ideas? What framework might facilitate such relations? And, are we a "we", and what kind of we can there be?

Through such questions, my goal is to open-up a fresh plane in which to explore and discover how collaborating with things shape one's ideas in sonic relations, what consequences this might produce, what matters here, why, and how it matters. The next section introduces my explorations in answering these questions, and the tools I work with to exercise material agency within my RC practice.

2.5.1.1 Com-posing with contingent materiality: Contingency as a tool for intra-action

From a new materialist lens, recognizing agency in things, affirms that material cause actions, movements and events; this in return changes one's' view of material from inert to a dynamic one. This, perspective, enables a complex relational plane for inter-dependent and response-able entanglements. Such understanding opens the self to a sensitivity for an entangled time-space-body continuum, that is about cultivating a practice of heightened aural and tactile attention to material bodies-in-motion (human and not). This means that the RC practitioner attends to how the material resonates with or reacts to one's own thoughts, and body through touch and movement, inviting a sensual and motion-based practice.

In my practice with agential things, in pursuit of exploring potential forms of intra-active relation (between self and instrument), and figuring out ways to join-in with these material agents, I explore and experiment with contingent things. Within this experiment, my goal is not seeking to pin down, and reduce things to the graspable, knowable, and therefore controllable, but to widen perspectives and possibilities into the unknowable. And my goal in working with the unknowable —as I poke, prod around, put feelers out there, and infer what might be on the other side— is that the process of experimentation might lead to paths that produce new ways of thinking and doing that are interesting and useful.

In such pursuit, as I invite the contingent instrument into the making, I invite the unstable and unforeseeable behaviors of things that sound and act through chance

elements; and embrace ambiguous and unpredictable behaviors that could not be fully-controlled to every extent. Here, I selectively use the word contingent instead of the word indeterminate. Both terms denote something that is not exactly known, that is about the undefined and the unpredictable; however, they gesture towards different ways of engagement.

Indeterminacy has a pair: the word determinate as opposed to the word indeterminate. Indeterminacy is about openness to, and about being subject to chance, and it does not particularly highlight the relational aspect; instead it highlights the situation itself. On top of this, it comes with a set of historically musical connotations that embraces a neutral form of distancing. Here, let us turn to one of the most aforementioned composers when it comes to indeterminacy: John Cage. Cage's intention was to eliminate subjective intention, and to decenter the self through a process of aleatory that brings unplanned and unforeseen situations into the making. He was disinterested in intentional subjective acts arising from a relational ground; and was interested in observing the chance-based and uncontrollable process itself. Cage (1961) states:

> [m]ore essential than composing by means of chance operations, it seems to me now, is composing in such a way that what one does is indeterminate of its performance. In such a case one can just work directly, for nothing one does, gives rise to anything that I preconceived. (Cage, 1961, p. 69)

Here, as he expresses, he is interested in situations that are even indeterminate of the performing self, we can say that his understanding of indeterminacy puts a relational distance between the self-and-self as well as between the self-and-other, within both composition and performance processes. This way, he distances the sound-making process form intentional decision-making and expression. His interest lies in severing consequential, relational making within musicking.

Contingency on the other hand —although also points to an event and circumstance that could not be predicted and is subject to chance— is characterized by its dependency on circumstances, certain cases, and relations in certain situations. In contingency, roles, relations, and behaviors are contingent upon something. Therefore, contingency enables relations that co-evolve, affording grounds for intra-active relationality within situated practices. Let us go ahead and look into the how, and ask:

How may contingency configure intra-active relations, and allow a practice with material agency?

In my practice, I work with a series of things placed within the body of the piano, either the way they are placed, their behavior, their sounding process or the way they are played have contingent characteristics (The things and my relational processes with them, are explained in detail within Section 3.4). Working with a contingent set of things is about engaging with material that has unstable and unforeseeable sound qualities and behaviors that are not fully controllable to every extent. Conventional musical training for performers either eliminate or minimize contingencies of instruments, as its main objective is about recognizing where the risk levels are situated, and then, to practice, and play from a place of maximum safety. But not knowing what is to come of the unstable and unpredictable instrument-collaborator, throws off the whole game, and situates the practice within learning to respond through maintaining tension.

For example, in working with contingent materials, the self might expect a particular sound to occur within the interaction with the thing, but the sounding result might be different, which in return changes the following response of the self, opening up grounds for dialogue, and intra-active relation. Co-creation with contingent materiality gives rise to a practice of learning to engage with materials that have a capacity to resist the intentions of the self, throwing-off the centralized role of the performer. The self then, rather than forcing materials to give the responses that one envisions or anticipates, affirms the resistances of contingent materials, and learns to participate in a response-able, generative way with unpredictable behaviors of the instrument; which at times is an uncooperative instrument. Here, within the relation, there is a form of surrender to the aspects of the unknown. However, the form of surrender is not inaction, or inexpression; on the contrary, it is a responsive and active form of letting go, to be with the other. Working with contingency, is about flexibility and openness to moving through a threshold of balance between stability, predictability, instability, and unpredictability. The unstable elements are attractors, and the system is set up to move with unpredictable elements. The tension that arises from such practice, constantly challenges response-ability of the practice, and opens up fields for cultivating ways to stay in relational co-creation.

The self interacts with contingent things through heightened sensitivity to notice and respond through a generative play. Here various postures of play could be explored: these include playing-on, playing-to, playing-in, playing-by, playing-nearby, being played by, playing-with etc. These overthrows a conventional habitual human experience in instrument/human relations. In the end, working with a contingent instrument brings us to an expanded understanding of material: one that is 1) physical, 2) a sonic thing, and 3) performative.

In wrapping up, the RC practice works with contingent materiality as an invitation to listen into our relations with our instruments through our bodies, our relations, finding connection to who/what we connect with, where we are within this space, what is being produced, and how. By these means, the practice aims to cultivate abilities to respond constructively, lively, playfully, and co-creatively.

This second chapter has introduced the concepts, theories and methods, adopted and adapted within the RC model. The next chapter reflects on, and discusses these concepts, theories and methods in relation with my music practice, shedding light on each and every stage of the RC practice through the lens of this framework.

3. WEAVING THE RC PRACTICE WITH THE FRAMEWORK

This chapter explains how the musical practice is weaved together with theories and concepts introduced in the previous chapter. I begin by briefly introducing the overall ontological and relational stance of the sonic practice of RC in relation with the theory; then, with each section, I take in hand every stage of the practice[23], and discuss them under the light of the theoretical framework.

In order to understand how the theories work within the musical practice, I will first introduce the onto-epistemological potential of the RC practice, which is about generating rather than illustrating. This means that the model does not understand the musical practice as a representation of the theories and concepts, or vice versa. In other words, the practice does not aim to produce theory as sound, or sound as theory; and therefore, does not aim to uncover how theories should accurately be translated to the practice, and they should sound; nor how sounding should be thinking and acting when translated/applied into the theories. The goal in doing so is to evade working through a transcendent plane, which implies that one field is secondary to the other, making the lower order dependent on the higher for its definition.

In pursuit of an immanent form of creation, with the RC practice I experiment with both making and breaking, configuring and re-configuring boundaries and definitions between theories and lived musical experiences as they come into relation with one another. And this is done in an intimate and hands-on setting; not from a distance questioning what appearances of things and their relations are. Instead, the self explores what to do with these things, their potentialities, how else they might be interpreted and expressed in pursuit of producing new and fresh outlooks; aiming to pose interesting questions and spark negotiations. Therefore, the RC practice focuses on creating generative relational connections and connectible ends instead of limiting

[23] Stages of RC practice as introduced earlier in the dissertation are: 1) initial encounter, 2) aural analysis, 3) tactile and movement-based performance with instruments and 4) re-composing/re-evaluating the results with, through and beyond the concepts and theories.

the process to a critical classification exercise. This way, in the practice, connections are done and undone from with-in their relations, and are always in relational movement.

In such a research, working within a generative and intra-active plane, a self-critical methodology opens up; one that, in each and every turn, stops to ask who, why, what, and how? Although artistic research methods are versatile and don't particularly have a series of standardized discipline-specific methods, there is one method common to all: autoethnography. Autoethnography is a qualitative research method that is concerned with tracing and documenting the experiences of the researcher. Within the practice part of the dissertation, I express a view based on my experience of analysis, interpretation, performance and composition. I explore relations and connections of these actions, within the wider socio-musical topic introduced and discussed within the dissertation.

The practice holds on to one's own hypotheses and actions, and tests them out. I begin with a guess, a speculation, looking at what it might mean within the specific composition practice I work through. I ask, what and how I/it produces in each case? What and how could I/it produce something else?

Within such practice, sometimes fluent transitions, and at other times, abrupt cuts occur. There is a vulnerable and iffy balance of connectibilities during the translation and transfer of processes. Therefore, throughout the process, various anomalies accumulate, and things that are difficult to explain come up, changing and shaping the theories and methods. As the nature of artistic research entails, the practices bring with themselves a set of doubts, confusions, hesitations, shortcomings and problems that change the methodology, and process throughout the research. The RC practice is about tracing the production of ideas, sounds, and their interactions within one's own body and mind, making them as explicit as possible through situated practices; however imperfect they are, what emerges is valuable information for the model. Although confusion and ambiguity are considered negative factors in general research milieus, in artistic research these are important elements. It allows movement between ontologically two or more different states of knowledge production, swaying between "thinking more acting less", and "acting more thinking less".

Consequently, the musical results that come about from such a process, are not perfectly translated entities in and of themselves, as conventional ontological discourses would state. They are processes of movements as actualizations, where some movements and intentions are hidden, and some are disclosed within the work, as either abstract or surface level auralities.

In wrapping up the above, as a result, the RC practice affords working with the speculative as well as the fact, the incomplete as well as the complete, the qualitative as well as the quantitative, subjective as well as objective, and most importantly, it works with the movement in between them. And the movements between the phenomenal and discursive aural practices, give rise to a valuable plane to re-consider the what a com-poser's practice is and what it could be. The next section further elaborates on these perspectives through switching modalities and moving between them.

3.1 Shifting Modalities Between Stages as a "Cutting-together-apart"

This section discusses the process of modality translations that occur between the stages of the RC practice, and explains the overall approach to how they are understood and evaluated. The stages of the practice, (as introduced in the introduction) are briefly: 1) initial encounter: inviting and joining-in with the other, 2) aural analysis, 3) tactile and movement-based performance with instruments (agential materials), and 4) re-composing/re-evaluating the results with, through and beyond the concepts and theories introduced in the previous chapter.

Through the modality translations, we come across a problem, the types of knowledge produced by each stage are different. In the analysis stage, I listen to agents within the recorded sound, and describe movements and behaviors guided by Temporal Semiotic Units (TSU). I take autoethnographical notes, and think through visual graphic representations. In the performance stage, I play with my instrument (piano and various things), still guided by TSUs, and produce similarity and difference responses. In this stage I think and produce through bodily movement and touch. And finally, in the evaluation stage, I organize and evaluate the materials produced with the accumulated relational web. The switch and dialogue between the modalities function as tools that generate a variety of perspectives and actions within the relational process.

As each stage create different modes of production, which are sonically informed language/text, graphics, sound, bodily motion and touch. Although initially each stage comes after the other, there is no one stage that dominates the other, and stages do not necessarily move in linear order through a sequence of static images; they inform one another through non-linear and modular patterns as explained in the methodology section.

As they are created from within a relational ground, it becomes clear that a true and absolute translation is not possible. Some stages create abrupt changes, divergences and ruptures, and on other times something might work, creating new possibilities and continuations, enmeshing modalities with connections. Either way, the process produces a variety of connectible ends that are held together by entangled consequences. Coming back to Barad, I interpret the switch between modalities, as a form of her "cutting-together-apart" i.e., performing phenomena through difference. And coming back to the immanent lens of looking at cutting-together-apart, where boundaries between space and temporality, here-there, then-now are not absolute boundaries, we see that the differential event occurs on one level happening at once. In the practice, once switches begin occurring, connections are constantly being made and broken, always in movement, and always in becoming. This causes stages to inform and be informed, change and be changed by the previous and later stages within the process, creating a possibility of true inter-relationality.

As introduced earlier, the goal in attempting to work with-in difference is not to fuse, synthesize, or solve the tensions; nor the aim is not to flatten nor erase difference, but rather, to focus on tracing relationalities, to understand how differences and interferences are produced, and to find ways in which these could be expressed as values in musical thinking and expression. Therefore, each connection that is made and broken, are read as complex contact zones. And these contact zones are imbued with potential to alter and transform all that is in the contact zone.

In further understanding this contact zone, let us turn to the explanation given by Erin Manning (philosopher, visual artist, and dancer) and Brian Massumi's (philosopher and social theorist). In their co-authored book, "Thought in the Act: Passages in the Ecology of Experience" (2014) they explore how thoughts act within creative processes. They refer to Deleuze and Guattari in their own artistic practice; and in the

paragraph below, explain in a snippet what goes on during a type of differential switch. They state:

> The middle: between rising and falling. It takes extreme speed, perhaps infinite speed, to pass between rising and falling. It takes extreme speed, at least at the velocity of thought, to pass between language and gesture. What happens in the middle is that the either–or is held fast together in passing contrast. It is the holding together that is felt, in excess of one or the other. The in-excess of the one or the other is not a both–and. The either–or is taken as such into the passing. The differential is sustained. This is what Deleuze and Félix Guattari term a "disjunctive synthesis" (1983, 12-13). (Manning and Massumi, 2014, p. 33)

Manning and Massumi's notion of this "middle" which holds differences "together in passing contrast" is the key. This is where relational expressions and acts occur, and cause movements that pave way for new expressions, affirmative or differential. In further understanding this process and how it works producing, and blazing trails along the creative path it is helpful to briefly touch upon Deleuze and Guattairi's rhizomatic thought process.

Deleuze and Guattari compare rhizomatic structures with arborescent structures; with arborescent structures there is a center, a source, a subject, that in which things emerge. Rhizomatic systems on the other hand, do not have such a center, the connections they produce, may multiply and grow randomly, and divergently. Not having a fixed center, any emergence can grow out of any point. And the (seeming) end-points are considered as potential connections, i.e. as connectible ends. So through the rhizomatic thought, Deleuze rids of the linear, binary, and hierarchical approach of transcendentalist thought, and moves into an immanent one (Deleuze and Guattari 1987, p. 6). I find that Richart Giblett's "Mycelium Rhizome" given below in Figure 3.1, is a useful visual representation of rhizomatic structures.

As seen in Figure 3.1 given below, the point in which all began is not pin-downable. The places where mushrooms emerge, seems like places where stemming-out stops; however, these "end points" are not disregarded or considered as static ends within the system; are entangled with previous connections, and remain as connectible ends for following connections, keeping a continually causal network of relationality.

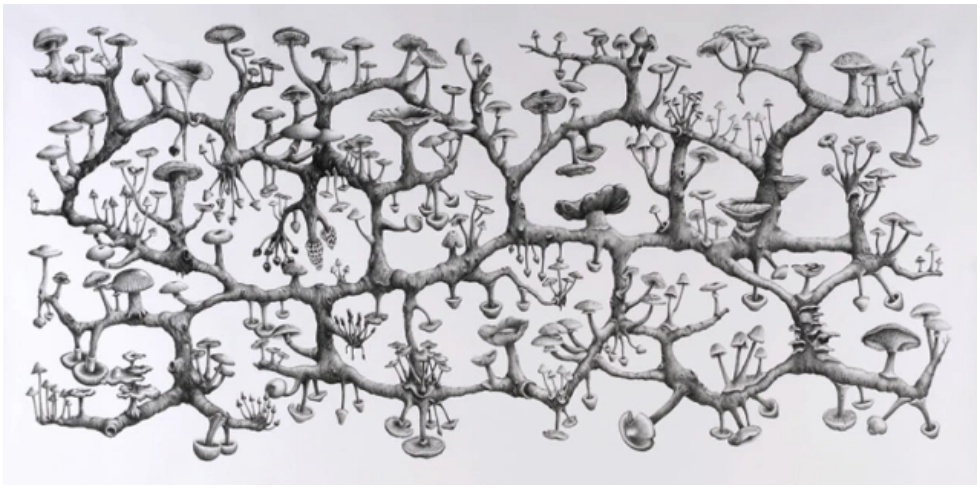

Figure 3.1 : Richard Giblett (2009) “Mycelium Rhizome”.

Working against the hierarchical structures in musical organization, one arrives at a heterarchical one, which the composer, author and computer programmer Curtis Roads (2015) defines as “a complex of simultaneous hierarchies” (p. 288). Notion of complex, simultaneous hierarchies in an encompassing heterarchical plane is very much hand in hand with the rhizomatic approach. In terms of musical planning within the compositional strategy, the RC practice could be situated within what Roads (2015) calls “multiscale approach” in composition: working with both top-down and bottom-up composing strategies in simultaneously in parallel time frames. He states that:

> The core virtue of multiscale planning is flexibility; it mediates between abstract high-level concepts and unanticipated opportunities and imperatives emerging from the lower levels of sound structure. (Roads 2015, p. 299)

Roads likens multiscale work to solving a compositional puzzle working both with plans that are predetermined, and non-planned grounds that remain open to spontaneity and intuition that lead to exploration of the new. Moving back and forth between expressing (actualizing, stabilizing) a stage then, de-stabilizing the stage through constant navigation of back and forth non-linear and non-hierarchical motion, allows an entangled relational contagion. The RC practice works through this type of multiscale approach implementing both top-down and bottom-up processes constantly exploring middle grounds, producing cases and particularities, that are connectible ends, along the way.

In ending this section, let us ask, what is the function of switching modalities and all these swaps? Each act, within each modality is differently charged with exchange with

the other. And using this charged exchange as a tool, the goal is to generate perspectives to engage perspectives, generate acts to engage acts. By switching between different modes of relation, and creating complexified relational doing and thinking, the goal is to heighten, and at times, transform the engagement process. This is not about finding a better way of expression, but to explore a series of possible attitudes that might provide new, inventive and fresh connectible ends that matter for a RC practice.

In the end, looking at contradictory differences from a positive angle, rejects an all-too simplistic and singular definitions; it implies there is more to discover about the agents, processes, selves, concepts, acts, and results. And from the poietic angle, working from within such space, one can perform multiple becomings, and multiple relations which opens up a world for rich and complex engagements.

Next, we shall go through each stage and explore various forms of "polite" negotiation in the act of "going visiting" within the context of the RC practice.

3.2 Stage One: Inviting and Joining-in with Others

Venturing off to "go visit" others, all begins with the readiness and desire to attend, and make-with others. Such posture requires an openness to affect and be affected, to stretch or dissolve boundaries beyond the ego-self, and to be with the other within the intimacy of composing. Throughout the visiting, the objective of the RC practice is to follow Haraway's "polite inquiry" as explained earlier.

Polite inquiry has to do with recognizing that going visiting and telling stories of these visits, is a risky endeavor; and then, is about paying attention to, and caring about these risks throughout the engagement. The risk Haraway is talking about entails assuming that the essences of others are established prior to our relation with them; that these pre-established natures and abilities are expressed through our relations with them. In exemplifying the polite inquiry, she takes in hand the work of Vinciane Despret (philosopher, psychologist and ethologist) who works with more-than-human others; Haraway explains:

> Despret's sort of politeness does the energetic work of holding open the possibility that surprises are in store, that something interesting is about to happen, but only if one cultivates the virtue of letting those one visits intra-

> actively shape what occurs. They are not who/what we expected to visit, and we are not who/what were anticipated either. Visiting is a subject- and object-making dance, and the choreographer is a trickster. Asking questions comes to mean both asking what another finds intriguing and also how learning to engage that changes everybody in unforeseeable ways. (Haraway, 2016, p. 127)

This entails a process of actively anticipating and receptively accepting the level of unknown into the process which requires an attentive, response-able, and intra-active relational ground that does not easily jump to simplistic definitions. Which also leads to reading each arrival point and result as situated and partial expressions bound to the perceptual and time-space limits of the self-in-relation with others. Then, we can say that becoming a polite inquirer, is about attending the other in a practice, interested to give, to bring forward, render capable, to let be, to enable rather than to tame; it is about becoming a responder and facilitator for things to come up. The next section introduces various perspectives and tools I used for my own practice in realizing the first stage of the RC practice: inviting and joining-in.

3.2.1 Working with sound recordings

Within the confines of this dissertation, I work with sound recordings. The determining factor for me to work with sound recordings was the pandemic caused by the Covid-19 virus. As I could not be in shared-enclosed spaces with others to improvise and play together in real-time, —which was my initial idea—, I ended up working with sound recordings which opened up a completely different field of possible relations than what I initially had in mind. This unexpected turn intrigued me to set out to find how I may be in relation with sound recordings through a response-able com-position practice; especially when sound recordings have been described as passive, inert and static things that are to be controlled and manipulated in the bulk of our written electroacoustic music discourses. And so I ask: How may I work through a “polite practice”?

Before introducing my relation with sound recordings, it is important to situate the word response as understood within this dissertation. A response could take various forms; it can mean to reply to a question; give a reaction to something; it could mean to give feedback; or to reciprocate etc. Within the confines of this dissertation,

response is a set of reflexive, physical, and mental reactions given in real-time and contemplative time to, and with the other. And as I work with fixed sound recordings, where the other does not give a response to my responses given to them; the relation does not happen in a dialogic manner. The response is something that is "offered in return" to someone/something by the self.

Let us begin by briefly considering two relational grounds with recordings in the initial encounter stage: 1) Relations with agents during the making of the recording, and 2) relations with agents that are in the recorded sound file, i.e. acousmatic agents. Both these approaches have different com-position dynamics, and affect the process differently.

1) Relations with agents during the making of the recording

I begin my practice by asking, how may I be a polite recorder? I am first and foremost aware that I am making numerous choices about everything that is involved. From the choice of the recording medium (which itself is an agent, having its own sound quality, and a set of affordances), to my interaction with the sound source, the space and time I make the recording, my perceptual capabilities, the movement and orientation of the microphone, my body, and the list can go on. Therefore, nothing is going to be objective, or truly absolute; I am already situated within an intra-active position, making choices by both affecting, and being affected. Throughout the recording process, I attend to a self-reflexive stance; attending to my involvement to and with the other, always aware of the fact that, if I have the other, the other has me.

In the end, the recording process is an embodied, performative, and intra-active act, especially when the self is mobile and in-movement during recording, s/he/they interacts and improvises in real-time with the agents within the soundscape. This entails that the relation between the self and other is also recorded, which means that the recording already holds within it, relationality. The RC practice then understands the act of making the recording as a real-time intra-active act, which varies in degrees of relational density, ranging between high to low level intra-activity. Here it is important to consider that the ear, listening and memory are also forms of recording medium; they are storage devices which construct a story during the recording itself. This mode of storying is considered as valuable information for RC practice, aware that my affordances color how I listen, and interpret the agents and recordings later on.

In working with more-than-humans, I began by going on recording expeditions through soundwalks, or I recorded sounds within the radius of my house. I listen into the sounds through an ear that is attuned to sound sources, sound types, their motion and behavior; gathering stories I find compelling to me personally; stories that intrigue me to go visiting, and to make-with. Within this dissertation however, the recording I chose to work with, has a low level of intra-action during the process of recording. I chose to work with my recording of two swallows, which I recorded from a static position from my window; where I was solely listening and witnessing. Here, a movement-based and highly energetic intra-action was not possible in that my bodily movements would have scared them, and I didn't want to scare them. However, this is not to say that there was no relation; there was a low level of intra-action, as they saw me seeing them, they saw my presence as I stood near the window, yet continued singing (the recording process with these swallows are explained in detail under their respective section, Section 4.3.1).

Next, let us look further into the relational domain of engaging with acousmatic agents once the recording is made.

2) Relations with acousmatic agents

As stated earlier, recordings situate. Once the recording is made, it cuts, fragments, reterritorializes, and expresses partial information about the other. So, the RC practice starts from the acknowledgement that these fragments of recordings are partial snippets from an ever-moving agential becoming, they are partial and situated expressions in the specific time-space in which the recording was made.

Coming back to an immanent practice that abandons simplistic, essentialist definitions, tools and expressions, let us turn again to Deleuze. Claire Colebrook (2002), in her book "Understanding Deleuze", suggests that, in understanding Deleuze's dynamic plane of becoming:

> We should not think of the world as an object, simply there to be represented (or re-presented) by a separate subject. This is the error of transcendence, the idea that there is a world that simply transcends or lies outside thought waiting to be passively pictured or represented by a viewing subject. (Colebrook, 2002, p. 52)

Understanding the recording under this light, the self is aware that the recording expresses a particular story through its life, as it begins, have a course, and end. However as everything is understood through relational becoming, as each self/agent engages with it, new potential expressions of the recording emerges. Therefore, the RC practice understands the recording both as a segment that is situated and partial; yet also, as a lively, performative, and agential thing in and of itself, rather than simply being a representation of something external. This is the posture in which I begin the relational plane with my relations with acousmatic agents.

In working with humans/musicians I work differently than my engagement with more-than-humans. I ask improvising musicians to do short improvisations (1-5 minutes), to make a recording, and then to send them to me. Then I receive a sound file, which I then download, and hear the improvisations of these agents, for the first time as acousmatic agents. Sound recording machines offer privacy and a free space of contemplation to the musicians by providing an intimate environment for them to record from their own homes; which then, eventually ends up into mine. Working in this way, the technology might have uncovered what would be otherwise hidden.

The recording that is tied to a specific body, space, time, and situation becomes the center of my response practice. The RC practice approaches the fixed recording somewhat like a found-sound, or a ready-made[24], imbued with motion and agentiality.

However, I do —however little— play a role that affects the improvisation that musicians do. I work with a tool in building a plane that could provide a shared and coherent focus between the musicians and me. As it is important for an immanent practice not to provide a rigid structure that'll create orders, I looked for a tool that affords providing a structure, however also offers flexibility and freedom for interpretation and change. I chose to work with Temporal Semiotic Units that affords to do so. The nineteen motion-based, energy trajectories, expressed through kinetic, temporal and semiotic descriptions propose various behaviors and interpretations of them. I ask Musicians to respond to one or more TSU of their choice. Rather than reading TSUs to function like scripts to be realized, I ask musicians to read them as impetus to drive the intention and attention functioning like a semi-structured guide.

[24] The term ready-made is mostly known through the works of Marcel Duchamp. Ready-mades (found objects) use everyday objects that are not originally considered pieces of art, within the context of art.

The musicians are informed that the TSUs function as a companion, and an inspiration for guiding them, and that they can interpret them freely, which could entail literal, or abstracted approaches, depending on their own preferences (See Appendix B for the text file I provide musicians).

By such approach, I aim to maximize discovery and personal idiosyncratic interpretation of the improviser, in the meanwhile holding together a common thread in which I can connect. In this sense, TSUs function like a glue that holds the whole practice together, providing a common creative intention and consistency between their listening/performing, and my listening/performing.

And of course, the next immediate question that arises is: How does the self join-in as a polite inquirer, especially when the agents within the recording cannot respond back in real-time? The particular strand of the RC practice I introduce within this dissertation, focuses on cultivating abilities to respond; it is based on response practices.

In my practice, I focus on contemplative response practices; and explore levels of engagement through learning, acceptance and ability to relate to a world "without me" (the self), asking the question, how may the self join-in as a response-able, polite inquirer and trace the effects of this joining-in on oneself, the other, and the relation. Therefore, in working with sound recordings, I do very little to no editing or processing to the recording at hand, as to keep agents as they are, and recognizable. The practice is interested in the unprocessed sound of the other "as is"; and is curious about the instant immediacy, complexity and authenticity of the sounds of the agents. As the goal of the practice is cultivating a response-able com-position plane, such posture enables the self to work beyond one's likes and dislikes; to relate and respond to a world "without me"; and exploring possibilities for a shared and communal space for whatever form of "us" that might emerge.

The next section introduces the second stage of the RC practice. It offers an aural analysis practice based on attending to agential traces and performativity of agents, following motion and movement trajectories on a socio-sonic level.

3.3 Stage Two: Aural Analysis Process

This section begins by providing basic information on aural analysis, and why it is adopted within the RC research. Then moves into the listening attitude of RC analysis process, briefly introducing an ontology of listening through the lens of intra-activity, and provides a basic ground and context. And finally, it introduces the tools that are used to guide the aural analysis, together with how the practical part of analysis is realized within my practice of RC.

3.3.1 The what and why of aural analysis

The RC practice is interested in carrying the concerns of embodied practice within the act of listening rather than uncovering disembodied scientific objectivities. In working with an embodied practice, I work with aural analysis, which provides a hands-on and experiential practice, allowing the self to trace what emerges from the immediacy of experience through sound as heard, rather than uncovering information that could not be heard by the ear. In further focusing the listening, I work with a series of tools that guide the aurality, functioning to focus the listening to bodies, tracing their behaviors and events caused by these bodies, and eventness of agents (explained in Section 3.3.3). As listening is a performative act; there is an energy in our listening, and the goal is to extract this energy into the musicking process.

Let us begin by briefly looking into the analysis of sound-based musics —which include instrumental as well as much of electroacoustics—. Most sound-based music is not likely to be analyzed and realized solely by the means of conventional notation systems. Various forms of aural analysis, as well as data extraction tools have been growing day by day, developing varieties of ways to notate and represent these sounds, which are informed and shaped by the objective needs and intentions of the analyzers, serving various purposes in which these scores/representations would be used.

Methods of aural analysis for sound-based music could be traced back to Pierre Schaeffer; and since, many composers, theorists and musicologist have shed light on ways to make connections and relations between the perceptual capabilities and analysis, rather than the incentive to represent every account through extensive representation, which might exclude perceptual capacities. And of course, there is the fact that a point-to-point complete transmission of information from sound to listener is not possible; as each individual has different auditive engagement strategies, or what

Lerhdal (1988) calls a "listening grammar". Some composer/musicologists who are interested in tracing perceptual connections of listener and sound in analysis, and produce related work are Denis Smalley, Lasse Thoresen, Mary Simoni, Stephane Roy, Pierre Couprie, Michael Clarke, Leigh Landy, François Delalande, Simon Emmerson and Thor Magnusson. Particularly from the perspective of this dissertation, the analysis, (which is also the case for the whole of RC practice) underlies a statement of aurality. This means that, by giving privilege to the notion of aurality, the whole com-position process revolves around the resonances and potentials of listening i.e. aural performativities. Therefore, the aim is that the result of analysis functions on a foreground level, where listeners can actually hear the relations presented.

When it comes to analysis, there is always an exhaustive list of things that could be analyzed within each piece of work. Every analysis, interpretation, and translation are intentional, partial, and situated; working in order to uncover some aspects of sound organizations, and not others. The listening in RC practice is guided by a sound-based, and movement-based listening. The listening tools I chose (explained in Section 3.3.3), create a selective attention which in return, shapes the responses I give, affecting my perception, movements, reactions, and evaluations. Before introducing these tools, let us briefly look into an intra-active listening attitude adopted and adapted within my practice of RC practice, as it will function as an essential ground to build the practice upon.

3.3.2 An intra-active listening

I begin by asking: How may the self be in intra-active relation with the sonic component/agent(s) through the act of listening? Let us start by answering this question from the very basics: The first obvious thing is that, sound waves are essentially free of humanly assigned meanings, they are neutral; however, when a listening agent is involved, as a phenomenological result (subjective experience), sounds undergo various appropriations and constructions through the listening of the listener, affecting the listener in return. As the idea of music is being produced simultaneously as it is listened to; the listener is no longer an outsider observer of music, but an active performer in its becoming. This means that there is already a level of intra-action happening; a listening-in-becoming, becoming-in-listening occurring at the core of sonic engagements.

RC practice starts by situating the act of listening under this light, which goes against instrumentalizing listening i.e., using listening as a tool, to achieve something else; but rather takes in hand listening as a part of becoming; as an intra-active and performative action. And as intra-active engagements are two-way entanglements, this means that, by attending to, and engaging with the other, one can in return, gain a more objective perspective of themselves. The self is, then, both self-preoccupied as well as one who resists one's own self-preoccupation in the act of attending the other. So, within this self-reflexive space, throughout the practice, I ask what do I hear? How do I listen? How can I listen differently? What happens when I do so? What are the effects of what I hear on my bodily production as well as on analytical production? Constantly tracing relational emergences of my listening and aural relation with others. The analysis then, is not about trying to define the other, or the self through the analysis, it is mainly interested in a bodily, performative, and movement-based intra-action, where the analysis is a record of the relation and movement that occurs between agents in the specific time/place/situation. As Barad states:

> The key is understanding that identity is not essence, fixity or givenness, but a contingent iterative performativity, thereby reworking this alleged conflict into an understanding of difference not as an absolute boundary between object and subject, here and there, this and that, but rather as the effects of enacted cuts in a radical reworking of cause and effect. (Barad 2014, 173-4)

Working through such a perspective, the main objective of RC aural analysis is to trace relationality in understanding what the causes and effects are, and how they come to be through a movement-based, and embodied ontology of being/becoming.

The awareness that there will never be an "innocent" point of entry into understanding, relating or negotiating with the other, because the self is already primarily implicated, plays an important role in the practice. Being aware that the self can listen to others' behaviors as they appear to oneself, but cannot know their experiences, changes the engagement process and the results being produced. Working through the unknown and vagueness, highlighting processual becoming, requires a practice of the middle. This middle is about holding two disparate things together: a differential becoming-with the other in the act of listening, where there is no separation without joining-in, and no joining-in without separation; consequently always a "cutting-together-apart". As the modulation between reception/action, inside/outside, here/there occur

simultaneously, negotiations where neglecting each other is always at stake begins. This type of risky and complex engagements, create fragility and vulnerability for both the other (being listened), and for the self (listener/analyzer). This risk itself enables a heightened state of listening and awareness during relating and responding with others; paving way for an expanded perspective into generating and tracing polite forms of relationality within sonic relations.

Following the aspects laid out above, the long and short is that, the analysis that is utilized within my RC practice understands listening as a participatory act in sounding-with others. The analysis works against instrumentalizing listening, enabling the self to be a part of a constituent becoming-with the other in intra-active relation. The listening shifts from listening-to to listening-with.

The next section introduces tools that guide the listening, offering a set of descriptions and categories for sound-shapes, motion trajectories, and behaviors.

3.3.3 The guides and companions for listening

My RC practice focuses on a sound-based approach. The term "sound-based" music is coined by the composer Leigh Landy (2007) to describe music that is based on a wide range of sound types that include outside note-based organizations. A sound-based approach provides an equal ground for various sound types that are more-than-pitch-based structures, which may include pitch structures. Consequently, it allows a multivalent and inclusive ground, affording to hold together a large variety of sound types and sources within a common sound space.

My own musical practice and aesthetic approach springs from a sound-based musical understanding. Throughout my research, I keep grounded in my musical thinking and artistic practice to be able to build an informed practice, which I have accumulated and developed over the years. Although I work from within my own artistic practice, during the RC process, I do sway in and out of my own preferences, and comfort zones in investigating, negotiating, and exploring various relations, in pursuit of cultivating response-abilities.

Throughout the RC practice, my listening/thinking process is firmly situated within the abstraction of musical thinking provided by companion tools that guide my listening and performing. The following subsections within this chapter introduce two of the tools that function to guide my listening: Spectromorphological descriptions and

Temporal Semiotic Units. The final tool that is used in the third stage of the RC practice, the similarity/difference responses, are introduced in Section 3.4.2.

I work with TSUs and spectromorphological descriptions because, 1) both spectromorphological descriptions and TSUs afford to work with a wide range of sound types, and sound organizations, providing an inclusive plane, 2) both tools are based on aural perception; they privilege music as heard, functioning within a qualitative practice. Therefore, they are fruitful for capturing some intentional features within music through means of one's own memory, affordances of aural acuity, and attention; allowing to trace what is gleaned through a relational act of listening, 3) and although from different angles and different temporal levels (sound, gesture and larger structural levels), both spectromorphology and TSUs possess an interest in interpretation of morphology, and motion of sound. Let us go ahead and look into the what, why, and the how of these tools.

3.3.3.1 The what and why of spectromorphology

As I am interested in engaging and working with sound through a sound-based approach, a spectromorphological vocabulary is essential for my practice. Spectromorphology is a term coined by Denis Smalley (1986) for describing sound shapes, based on an interaction between the sound spectra, and the ways it changes through time. It is a descriptive tool for aural perception, aiding the listening situation seeking to explain and analyze sounds, sound events, structures and space through an accessible set of descriptions (See Smalley, 1986, 1997). Smalley states that spectromorphology "is not a compositional theory or method, but a descriptive tool based on aural perception" (Smalley, 1997, p. 107). However, he also declares that spectromorphological terminology offers various modes of thinking and listening, therefore carry potentials to influence and inform the compositional process. Today there are practices that work with spectromorphology as a compositional tool[25].

Smalley, points out that spectromorphology has been designed for describing electroacoustic sounds, however some contemporary instrumental sounds could also be analyzed spectromorphologically, as spectromorphological descriptions afford to

[25] The proposition to work with spectromorphological rescriptions as tools for composition was first expressed in writings of the electroacoustic composer, Manuella Blackburn (2011).

be used with all sound-based musics (ranging from noise to note-based sounds and a large variety of shape, motion and growth processes on a temporal level). As I work through a sound-based ground, inviting a wide range of sound sources[26] within my RC practice, and that spectromorphology affords working with such a sound world, spectromorpholocal thinking becomes important in tracing my engagements.

Although Smalley's spectromorphology is used for listening into the intrinsic qualities of the sound —following Pierre Schaeffer's (1966) tradition of reduced listening, which brackets out sounds from their sources and causes—, I work with by also describing motion trajectories, behavioral characteristics of sounds, along with semantic and other narrative meanings, bridging the intrinsic to the extrinsic. As I listen into a variety of characteristics, some of my descriptions may look like:

- The sound source is…
- The sound qualities could be described as…
- The sound could also be described as…
- The sound sounds like this other source which is…
- The dimension of the sound where the movement is happening is… (could be mass, gait, dynamic profile etc.)
- The possible semantic and self-reflexive narratives of motion and movements could be described as…

My aim is to express a listening experience that holds abstract and programmatic interpretations together, and allows them to be in dialog, informing one another. Performing a listening that aims to express shapes, spectra, timbre, motion and behavior of sound, along with semantic meanings, structural narrative, generating a variety of interpretations, holds the extrinsic and intrinsic levels together. Focusing the aural perceptive level equally on both, brings in a level of objective/subjective balance into the relational plane. And as Smalley points out, the two levels are already inseparable as they rely on one another in creating sonic meaning. He states:

> In order to explain extrinsic workings and qualities we shall need to focus our attention on intrinsic analysis of spectro-morphological features and their structural context. In other words, the extrinsic is determined by the intrinsic

[26] Sound sources include human and animal voice, conventional and non-conventional instruments, various environments, and electroacoustics.

> and visa versa–it is a reciprocal relationship. I regard musical experience as simultaneously extrinsic and intrinsic. (Smalley, 1996, p.105)

In my practice, I use spectromorphological descriptions together with Temporal Semiotic Units as to frame and guide my listening, and to explore movements between the intrinsic and extrinsic levels of listening. With the next section, I explain what the TSUs are, why they are chosen for the RC practice, and how they are understood and implemented within my practice.

3.3.3.2 The what and why of Temporal Semiotic Units

In my aural analysis, listening to motion and movement, I focus on agential acts tied to bodies in the sonic space. Tracing agents, their movements, and behaviors provide guidance to my listening, and they allow me to entrain and synchronize with others on an embodied level. In listening and performing with the sonic agents, and the events they create, I use TSUs as a guiding tool, as it affords working through a dynamic, embodied, and contextual relational ground. Let us begin by what TSUs are, and then move into their function, and how I implement them in my RC practice.

Temporal Semiotic Units (TSU) [*Les Unités Sémiotiques Temporelles*] are a series of units that have a specific morphological organization, linked to a semiotic meaning. TSUs were devised in 1992, at the Laboratoire Musique et Informatique de Marseille (MIM) by a group of composers and visual artists. Led by François Delalande, the study offers a systematic approach of drawing connections between energy-motion trajectories with music and/or visuals through figurative analogies; which Delalande (2003) calls "sonorous figures".

Delalande explains that, TSUs are "musical segments that possess a precise temporal signification linked to their morphological organization" (Delalande et al., 1996, p.18). There are nineteen units in total, and each unit has two sets of information: a morphological and a semantic meaning, expressing both the motion (or the lack of), and a semantic meaning tied to such motion. These morphological units are not just formal structures, they are made of different compounds, which lose meaning when divided and separated. The meanings the units have, are designed to be translatable across disciplines, i.e. they carry very similar meanings within both the sound and the visual domain. Delalande describes TSUs as:

> Sound configurations that seem (...) to be bearers of a very specific "signification" on the temporal plan. Sometimes it is a configuration that one finds in a specific work. However, on the contrary, sometimes it appears in various contexts and under slightly different shapes, but having always more or less the same effect or the same temporal significance. (Delalande, 1996, p. 18, [as cited in Zanpronha, 2005])

The units were first devised to work with the electroacoustic domain of music. From the analysis angle, it is especially fruitful to analyze electroacoustics where the conventional notions of analysis parameters such as melody, pitch, rhythm, harmony, might not suffice to explain much. However later, TSUs were used for instrumental music that entailed different forms, styles and genres of music as well. MIM researchers stated that they wanted to move away from limiting the repertoire to a particular style of work, and to create a system that affords an inclusive historical, stylistic and geographical variety. Delalande states:

> One will also note that if the U.S.T. [Temporal Semiotic Units] owe their sense to "natural models", to "general codes", one can look at what is independent from a culture, a period, or a style. (...) It is fairly likely there are no cultural frontiers to this vocabulary. (Delalande, 1996, p. 22, [as cited in Zanpronha, 2005])

The study originates from the work of Pierre Schaeffer (1966), and his notion of the sound object (*L'objet sonore*), however takes a completely different course. What sets the TSUs apart from the Schaefferian sound object, is the matter of context that stands at the core of meaning mechanisms of TSUs. Much of Delalande's work is based in listening and perception of music (see his "Listening Behaviors" 1989); his interest is to study music not as an intrinsic musical object, contained in and of itself only on theoretical grounds, but as a continual relation between object and perceiving subject i.e., reading sound events through phenomena.

So far, the MIM researchers defined nineteen TSUs. They are categorized under two main blocks: 1) units that are unlimited by time (temporally unbounded), and 2) units that last for a specific period of time (temporally bounded). Detailed information of the TSUs could be found within the Appendix A. For a chart of categories and names of TSUs see the Table 3.1, given in the next page.

Table 3.1 : Temporal Semiotic Units Chart.

Temporal Semiotic Units (TSU)	
Invariants – Temporarily Unbounded	
Invariant by Repetition	Wave-like (Moving in waves)
	Turning (Spinning)
	Obsessive
Invariant by Stagnation (lack of growth)	In Suspension (Suspended activity)
	Stationary (Stillness)
	Floating
Invariant by Chaotic Effect	Divergent (Having no direction because the information is too varied)
	Chaotic (Having no direction because there is too much information)
Variants – Temporarily Bounded	
Variant with a Uniform Development	Moving Forward
	Endless (Inexorable) trajectory
	Heaviness
Variant with a Thwarted Development	Fading Away (Inertia)
	Halting (Breaking)
	Stretching
	Wanting to start (Unassuaged)
Variant with a Disrupted Balance	Falling
	Momentum (Propulsion)
	Contraction-extension (Compressing-stretching out)
	Suspending-Questioning (Interrogation)

The graphic designer Julie Rousset, working with the MIM Laboratory, designed a system of graphic representations for the TSUs, in order to write and read the TSUs by typographic representations. In the Figure 3.2 given below, are her symbolic representations of the nineteen TSUs:

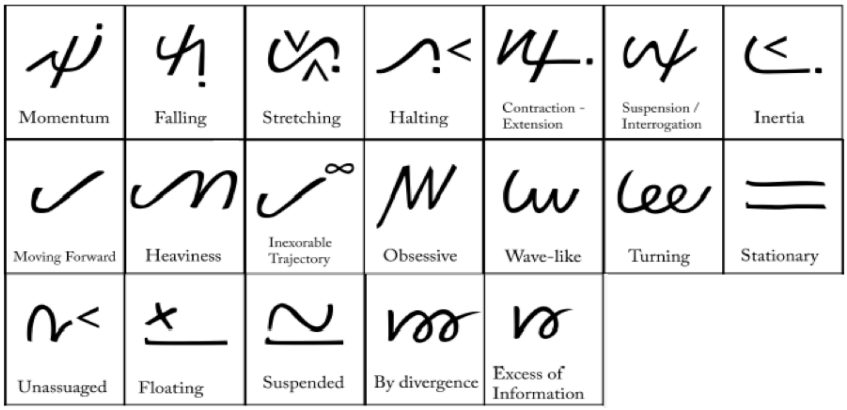

Figure 3.2 : Graphic symbols of TSUs, Designed by Julie Rousset.

I use her graphic symbols for the aural analysis visuals as they allow me to de-clutter the visual field by replacing the clutter of text, with a single symbol.

In sound practices, as a temporal, processual, and semantic guide, the function of TSUs is to support the consciousness, orient and guide the intention of the listener; framing and shaping the listener's experience of music through the lens of the nineteen units. There are several reasons for why I chose to work with TSUs: 1) They provide nineteen possibilities, therefore limit the attention and interpretation, functioning to create a coherent line of focus throughout the dissertation forming contact zones between differences in my research, 2) Based on energy and motion trajectories, TSUs afford detecting and engaging with agential bodies, as well as entraining and finding points of motion companionship with them, 3) They guide the listening and allow legroom for interpretation; in some cases, the musical events could be described, interpreted with more than one TSU, and a TSU could be applied to different sound types, and contexts. These affordances suit my incentive to work through a generative and self-reflexive ground. Let us look closer into each one of these aspects.

1) TSUs function to limit the attention, intention, and interpretation, providing a constraint to condition the listening through a series of units. These units are used as tools to trace forms and degrees of associative appearances of others in the act of listening, and allow finding points of contact with the other.

The limited set of nineteen TSUs enable a plane of orientation, and provide patterns for a coherent line of reception and action. These common threads run through various modes of production within my practice, which consist of listening, prescribing the listening, performing, and re-evaluation. The coherency of the RC practice is built by both the shared set of conceptual resources (provided in previous chapter), and Temporal Semiotic Units, guiding my listening, performing, thus relating to other agents.

2) As TSUs are based on energy and motion trajectories, they afford detecting and engaging with agential bodies, and they allow an embodied ground in which to entrain and find points of contact through what could be called a motion companionship.

When it comes to detecting agential presence in the aural domain, the most agency inducing parameter of sound is gesture. Gesture in sound is an action of physical sounding bodies moving in space. The movements could either be physical (as material

occurrences) or imaginary (mentally constructed, metaphoric, and symbolic interpretations of movement informed by physical movement). It is important to state that, although TSUs express movement (or the lack of), they are not exactly gestures. However, some TSUs do express gestures: all temporally bound TSUs along with some temporally unbound ones could be categorized as gestures. Nonetheless, my goal is not to categorize and understand TSUs as gestures, but to trace agential presences that are most apparent in gestural appearances.

The physical agentiality disappears when the sound event is stretched out, slowed down or stopped. One such example for this is the TSU "stationary" (stillness): in this unit, there is a slow temporal evolution, without purpose or direction; it does not cause any expectation, it is a temporal unit where nothing advances giving a feeling of standing still. In this unit, movement is not articulated, therefore, the presence of a body is weak in the aural domain. In such situations, I still look for embodied activity, as my main goal is to trace presences and behaviors of performing bodies present in the recordings I have gleaned. Here, even though bodies and movements are not aurally present, I read the non-movement also as a performance of the body; so, I interpret the silence, slowed down or stretched motion, as a statement of the body.

As I listen in detecting and expressing embodied activity, through the lens of the nineteen possibilities of TSUs, my focus is directional and expectational, awakening various psychological and proprioceptive responses. Today it is well known that we tend to synchronize and entrain with music through sensory, motor and emotive systems; and so, on the inherent level, the very act of listening is embodied. Many researchers have studied how motion and gesture in sound summon physical reflexes and projections in the listening body, creating levels of embodied responses (Delalande; 1998, Hatten, 2004; Chadabe, 2004; Doug van Noort, 2009). As movement and gestures highlight the notion of agential presences and embodiment through movement, I listen to entrain and synchronize with others, looking for connection points for a motion companionship in my listening.

3) The engagement criteria of TSUs are not too rigidly specific, nor too openly generic; it leaves space for an expressive, relational, and processual practice that thinks in terms of interpretation and imagination rather than a scriptural and prescribed listening. A sound could be associated with more than one TSU, and a unit may take on other possible meanings with different listenings, and contexts, which allows the listening

to tune into what the experience of motions are, what else they might be, how else can they be thought of, which opens a path to flow the question of what could be revealed under the appearances of motion of agents? It could be said that the TSUs hold a bucket of behaviors; however, it is a leaky bucket of behaviors. It is leaky because TSUs are always in negotiation with the interpretative act that is listening; this makes TSUs tools useful for storying and producing narratives, that is of value for the RC practice. I apply TSUs to all my sonic interpretations through the analysis and performance practice, and therefore end up stretching some parameters and interpretations of these units. In these situations, although my interpretations initially appear in different contexts and slightly different shapes that of the TSUs, very similar effect, and semantic significance is maintained. As explained above, this does not go against the grain of the application of TSUs (see Delalande, 1996, p. 18).

Now we have a basic understanding of the tools along with why they are used within the RC practice, with the next subsection, I'll introduce the practical application, i.e. the how of working with these tools in the RC practice.

3.3.4 The how of working with the chosen tools

This section briefly introduces the practical applications of the two above-mentioned tools (spectromorphological descriptions and TSUs) within my RC practice. Once I record agents in soundwalks, or receive the sound files from musicians, I firstly start by listening without any guidance to let initial impressions emerge. I jot down traces of my listening in forms of abstract graphic symbols and text. In this stage, there is a tracing of one's own initial engagement through listening, memory, intention, and affects that would in return inform interpretations of the TSUs. At this stage, I do not aim to draw connections with TSUs immediately, but to glean immediate, initial impressions.

After this initial listening, the next step moves into a listening section guided mainly by the TSUs. During this listening, some movements, events, and behaviors cannot be explained by the units. In explaining aural attributions for structural functions, as Smalley states that the very interpretive act itself is fed on ambiguities:

> What we interpret depends on our aural acuity, how good our aural memory is, how we unconsciously or consciously decide to focus our aural scanning, and of course, the skill with which the composer has prepared the musical structure

> for our apprehension. However, interpretation of function is not necessarily a decisive process. Listeners and structures thrive on ambiguities. During the act of listening more than one function can be simultaneously attributed to a single level of musical activity. […] But a single, definitive attribution is neither necessary nor always possible. Insecurity is part of the musical process and we can be quite happy to be left with dual or even multiple attributions which reflect our experiencing of functional ambiguities. (Smalley, 1987, [in Emmerson, 1986, p. 86])

In such situations, I look for connections, and if I cannot draw connections between sound events and the TSUs, I write down my own interpretations, at times, generating different energy trajectories and making stories that might lead to new connectible ends. In any case, sound events are described, therefore tied to specific conditions and particular agents, they are situated. And through these situated results, TSUs are not understood as mere sound effects that represent agential motions (or lack of them), but as tools to drive the contextual and narrative responses.

As the response narrative is highly dependent on the received narrative, the results of the analyses are selective, interpretative and situated; they are far from an all-encompassing representation. They are rather traces made in order to capture the ephemeral situation of listening. With the next section I look closer into how these traces materialize within the visual domain, explain how I visualize my analysis, and what the functions and utilities of the visual representations are.

3.3.5 Visual representations of the aural analysis and their functions

The word representation is a tricky word within the context of aural analysis, because the aural experience basically represents its own understanding of what is heard. What, and how we choose to represent what is heard, into what is seen, gives us information about the intent of the listening and engagement.

The aim in making visual representations for analysis in the RC practice are, 1) understanding one's own listening and socio-sonic expression, and creating traces of these experiences for further evaluation, 2) informing the movement and tactile-based responses, that come in the third stage of practice. However, it is important to note here that, the sketch produced in the aural analysis stage, functions somewhat as a memory-story, not as a score for the movement and tactile-based performance

(explained further in Section 3.4), and 3) making the process available and traceable for others. Next, let us go through my process of RC practice; look into what types of visual representations I create, and what their functions are.

I start by tracing initial impressions that arise in my listening. I make sketches on paper by hand, jotting down graphic representations, diagrams, along with words to describe the what, and how of my listening. Personally, for me, thinking and transcribing analysis with pencil and paper is the best medium, so in this process I chose to use only these tools. The medium to glean first impressions would differ from person to person, as each person might have different preferences and inclinations. Here I do several listenings, and on my sketches, I jot down sound-types, behavioral models, formal plans, narratives and affective traces.

Next, I do another set of listening guided by TSUs, and keep on working on the hand-written sketch. As I do multiple listenings, some things remain the same throughout the sketch, whereas, others undergo change. During this process, I keep working on a single sketch. The paper is a limited medium, and cannot hold every choice I make; my previous choices —although mostly erased and undistinguishable— have traces on the paper medium. Working on a single sketch, with the affordances of paper, pencil and eraser, allows and guides me to continue making choices, and lead to an "actualization" i.e. a situated result, expressing one thing, and not another.

These results in the sketch, inform the movement and tactile-based performance stage. However, the results on the sketch are not structures that transfer to the next stage smoothly and linearly. The translations initiate a space of negotiation between modalities. The performance listens and responds to the other, by bodily movement and tactile information, together with the instrument (material agents). Here, the performer gleans information where performers' techniques, affordances of instruments, bodily movements and tactile experiences, return as thought. During the course of performance, I rarely look at the sketch for information; the sketch does not function as a score to be realized by the performative stage, it provides an informative, yet loose-enough frame that guides and informs the movement and tactile-based performance, yet doesn't reinforce itself. By keeping a lose-enough relation, my goal is to generate a series of relational responses that emerge from moving bodies (human and instrument), tactile, and sensual information, which might or not be in concord with the initial notes.

After this performative stage, I further evaluate the sketch with accumulated information from motion and tactile practice, sometimes affirming, adding, remaking, changing or erasing what the listening of the aural analysis has produced. I work on the sketch until I have arrived at, —what for that moment feels like— an end. Because of the generative nature of the practice, there is always a feeling that it has not come to an end; however, as I aim to produce a situated result and express arrival points, I try and mark ends to things when the initial thought arises.

When the analysis stage is completed, I make picture and video representations of the latest version of the analysis for others who would like to trace my aural listening and thinking-in-relation. I use Pierre Couprie's EAnalysis program for creating the video analyses. EAnalysis, is an open access analysis program that offers a variety of forms for analysis. It includes a wide range of data analysis for recorded sound, providing a variety of audio descriptors, includes analysis vocabulary as well as a series of symbols, and graphic representations created by Lasse Thoresen, Pierre Schaeffer, MIM Researchers, Simon Emmerson, François Bayle, Denis Smalley, Stéphane Roy, Annette Vande Gorne and Pierre Couprie (for more information about EAnalysis, see, Couprie (2017)). To create the graphic pictures, I export visuals from EAnalysis to Microsoft PowerPoint. PowerPoint is a sufficient-enough program for what my analysis aims to express; within these visuals, I illustrate details of my analyses and response processes using shapes and text.

For each com-position, I firstly make an analysis video of the acousmatic agent(s). And then, I make analysis videos for each of the two responses I create with them (similarity and difference), where all the agents are present in the visual and sound domain (the two performance responses are explained further in Section 3.4.2).

The pictures and video analyses of the solo acousmatic agents display only the formal structure demonstrated as sections and units, along with TSUs, marked onto the waveform and spectrogram view. The waveform and spectrogram view present temporal information and allow the viewer/listener to trace, spectra and dynamics of sound, which provides an accurate-enough guide for following motion and energy trajectories while listening.

The picture analyses of my responses with the acousmatic agents include relational explanations, demonstrating the thought, movement and choices for these connection-

points. These relations are illustrated with waveforms, text, and various shapes, like arrows, lines that mark and show where events happen on the waveform, and are explained in more detail with the accompanying text. However, the video analysis is different. As the video is linked-to, and moving with sound, explaining detailed relational connections with text provided an over-abundance of information, where the listener was not able to follow the information flow as the visuals moved by. So, the detailed information regarding relations, are only explained in text and illustrated in picture format. Which could be listened to in either sound files, videos that represent only an overall analysis, that marks formal sections, units, and TSUs.

Next section introduces the third stage of the RC practice where I describe my instrument (material agents), my new materialist practice, the tools and processes I work with, and how I work with them.

3.4 Stage Three: Motion and Tactile-based Practice with Material Agents

The third stage of the RC practice is about enacting thought through the performative force of the body. The goal of this is to activate modes of relational knowing-in-being on another level than aural analysis: through physical movement of the body and touch. In this stage, sonic actions are imbued with sensual, gestural, and bodily listening, performing and composing. The goal of tactile and movement-based performances within this stage is to keep on generating theories and musical questions —and sometimes answers— that informs previous and future actions, through intra-active relations.

In this section, I introduce my new materialist approach along with the instrument I work with: the piano, and a series of "things". I continue by explaining the relational behavior models I use for shaping my responses; and finally, describe how I implement the perspectives and practices in my application of the RC. Let us begin by unpacking the new materialist practice.

3.4.1 A new materialist practice between instrument and instrumentalist

In the pursuit of a new materialist approach to RC practice, I ask what happens if we consider musical instruments/material things as lively agents? And what were to change if we were to take the poietic divide of object/subject, passive/active,

inanimate/animate between the performer/instrument and composer/sound as failures of imagination?

From the historically conventional perspective, Eurogenetic instruments are mainly designed to be objects; and us performers are trained to interact with them as such. However, as humans, we are natural born cyborgs because we have never existed without technology, so one way or another we have always been aware of the agential potential of things, how they generate ideas, how they afford and limit what could be.

In practicing a new materialist approach with instruments (things), I adopt and adapt a practice called *séquence-jeu* (play-sequence). Play sequence a composition practice devised and taught by the composer Guy Reibel in his electroacoustic music classes[27]. Play-sequence is practiced by means of a performer (who doesn't have to be a professional instrumentalist), a sounding thing-body and a microphone, where the composer explores various gestures of sounding capabilities of a single thing (and of course, one's own capabilities of interacting with it). The player defines a single parameter to be explored with the particular thing/sounding body and explores this parameter, through a single method of playing.

This was developed to somewhat pump-life, give kinetic energy, and provide an intentional motion into recorded sound. The recording then, is imbued with instrumental gesture, and personal bodily expressions, that are carried into the organization of electroacoustic compositions. I read this a potential plane to convey the energy that surfaces from the relation between instrument and instrumentalist into the compositions.

When play-sequence is carried into new-materialist grounds, where the human, switches perspectives of material from object to a participatory body, it opens-up agential capacities of both the material and the human to emerge. In this relational plane, the main focus is on intra-active happenings i.e. the relations that emerge from material and human bodies.

I adapt and adopt play-sequence in my practice because, 1) it incorporates an embodied approach in composition, 2) although not devised with a new-materialist perspective,

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[27] Reibel first devised and taught play-sequence in 1975, at Paris Conservatoire National Supérieur de Musique et de Danse de Paris (CNSMD)

I find that it provides a valuable ground for investigating human/instrument relations, through agential materialist practice where the instrument body is also in the performative loop as an active agent; and therefore 3) highlighting the relational ground within sonic thinking/doing.

In my practice, I play parts and sections, reiteratively, rehearsing possibilities where the goal is to generate, explore, and produce multiple relational results. And through this multiplicity, I look for idiosyncrasies emerging from gestures, sound types, and behaviors, that are unique to the material instrument, to me, and our relation. Such practice then, broadens both definitions of composer and performer, as well as the agential and relational capacities of instrument and instrumentalist. Next section introduces the musical instrument(s) I work with, which play an essential role in defining and shaping my artistic practice.

3.4.1.1 Working with the piano in my RC practice

In my practice I work with a grand piano and a variety of material things. The piano is a visually loud instrument; it is loud in the sense that it is loaded with its historicity. I don't consider this loaded inheritance a baggage per se, but something quite weighty. The historical inheritance is embedded in the physical presentation of the instrument, the sounds it produces, and techniques humans use to interact with it.

Throughout most of its existence (since 1700's), it was expected to sound and be played a certain way, and not another. The piano was first designed to emit fixed pitches, i.e. notes, and to be played by using the keyboard; which continued to be the case up until around the half of the previous century, the 1940s.

Today the instrument is imbued with potential to become quite a different beast; there are many musicians exploring new possibilities for sounding capacities and performance techniques. There are various approaches to playing the piano, either by inventing novel playing techniques, by developing and changing the instrument, or using it with electronics in new and creative ways. A striking example for an altered acoustic grand piano body is Sarah Nichols' "inside-out piano". Nichols has built her own piano, where the metal case of the grand piano is upright, making it easy for the performer to reach into it while playing. Another example is Andrea Neuman's instrument, called "indoor piano", also known as "inside piano". This instrument is a modified piano designed by the piano maker Bernd Bittmann and Neuman herself. The

instrument consists only of a sound board and strings (with no keys), it is small and light enough to be carried. She performs with everyday objects, and electronics, using extended techniques and creative approaches to programming and real-time electronic processing. Marina Khorkova's (2011) "multiphonics-piano", also works with an acoustic grand piano; hers is also stripped from its keys; she uses the outer wooden body with legs, sound board, and strings. She places various objects and mechanisms on and around it. She states that her work is inspired by Caspar Johannes Walter's work of multiphonics on piano strings (2012). She creates a variety of playing techniques and sounds together with electronic extensions. Along with these, some other examples that use non-conventional and novel techniques within improvisation settings are Magda Mayas's, "inside piano" technique (2019) where she plays conventional acoustic pianos, with a variety of materials and techniques. She also uses spatialization techniques by using microphones, speakers, and contollers to distribute sound. Denman Maroney's (2019) Hyperpiano, where he plays the conventional acoustic piano, with a variety of tools; Sebastian Lexer's (2012) Piano+, using the acoustic piano along with a computerized performance system using real-time electroacoustic processing; Palle Dahlstedt's (2015) hybrid grand, which uses the acoustic piano, together with electronic processes, that use novel mapping techniques resulting in virtual resonance strings, dynamic buffer shuffling, and acoustic and virtual feedback. Together with these, he uses various placements for microphone, and speakers where the acoustic and electronic sounds blend into or interact with one another. These are just a few examples from a growing field of exploration that defines anew, what a piano is, what a pianist is, what virtuosity is, and opens up conversations of what each of these might become[28].

My practice, within the confines of this dissertation, is mainly inspired and informed by Magda Mayas' (2019), inside piano technique. The term inside piano is coined by the pianist Reinhold Friedl. Inside piano is a common term used today in 2022, designating a playing technique that is from within the body of the piano; it could include playing the metal case, the wooden soundboard, or strings, either with hand or

[28] Some other notable pianists that use a variety of means for moving beyond the conventional means of performing with the piano are, John Tilbury, Benoit Delbeq, Tisha Mukerji, Reinhold Friedl, Frederic Blandy, Cor Fuhler, Sophie Agnel, Zoe Efstathiou, Hara Alonso, Misha Mendelberg, Chris Burn, Anthony Pateras.

various material things and electronic extensions. This is unlike the prepared piano, where in pieces like John Cage's "Sonatas and Interludes" (1946-48), the performer sets up the piano in long hours of preparation before s/he/they performs. In these preparations the performer places various objects, like pieces of rubber, screws, and coins within the piano. How, and where to place these objects are specifically articulated in the score, which in return creates particular sounds that diverge from the conventional sound-world of the piano. Just like preparing the piano, removing the objects placed within the piano, also require a long period of time, as well as careful attention not to harm the piano during the placement and displacement of objects. Along with these, with the prepared piano technique, the objects are usually placed between the strings, and the playing technique mostly involves playing the keys.

The inside piano playing technique on the other hand, could incorporate playing the whole body of the piano including the case, the strings as well as the outside of the piano. It is played with a variety of objects that are added and removed within the process of playing in real-time, creating changes in the timbre and morphology of sounds. The real-time, immediate changes made by the use of the insertion and removal of objects, and the variety of techniques do not harm the piano.

I have been playing the piano since I was eleven years old, and I have studied piano in a conventional Eurogenetic practice milieu in the conservatory. My desire for playing inside piano came from my interest to widen both the sonic and gestural vocabulary in performances. On the sound level, unlike the conventionally pitch-based and mono-timbral sound world of the piano, inside piano offers a wider tone-based vocabulary, a wide variety of sound types, and timbres, rendering a sound-based music practice possible. On the other hand, it opens up possibilities to move away from the fixed amplitude envelope of the piano sound, which is restricted to the limited variations of attack-resonance models. On top of this, as inside piano techniques produce a large variety of sound types, timbres, morphologies, and durations, they provide an ambiguous field of sound-source relation for the listener. Especially if the inside piano sounds are acousmatic (listened from the recording), the sound sources might not be easily definable on the aural level. This way, it also offers a ground to play with levels

of source bonding[29]. And finally, on the physical motion of the body and gesture level, the inside piano offers expanding the palette of possible gestures in performance (Gestures and sounds I use in my practice are explained in Section 3.4.1.2). Next, I'll introduce the material things I work with in my RC practice, starting with the particular piano I worked with, for this dissertation.

The piano within this research

The piano I worked with in this particular practice is an unusual piano, which played an important role in informing and shaping my practice. I did not have an acoustic piano at my home to realize my inside piano practices; and because of the Covid-19 pandemic, I could not commute to a studio for a daily practice.

Some time ago, I encountered a piano sitting in the entrance hall of İstanbul Technical University, Turkish Music Conservatory (İTÜ TMDK) Composition Department. It was dusty and half broken, as it was staying in the hall for many years. I immediately went to visit it, and listened and played to see if a collaboration could be possible; and after some inspection, I decided that it was indeed possible. And so, I contacted the assistant principle of the Conservatory, Prof. Dr. Can Karadoğan, and asked if adopting the piano for my studies could be a possibility. Thanks to the great efforts of Can Karadoğan, and to the committee approving my request, I was allowed to adopt the piano for a year and a half. This instrument became my collaborator for this research.

The piano has a peculiar story. It had survived, a roof collapsing on it on a rainy day, filling its body with water, and dirt, which was then abandoned to a storage space for years. As it was about to be thrown away as garbage, when the luthier and professor in İTÜ TMDK Assoc. Prof. Tunç Buyruklar saw it, stopped the process, and asked to keep it for his classes on instrument building. After some time, as Buyruklar taught the pianos inner workings to students, it functioned as subject for learning, was being rebuilt and repaired along the way, and finally was brought back to life as having a stable body, new strings, and working keys. However, after being used for a short time, it was abandoned in the grand entrance of the İstanbul Technical University, Turkish

[29] Source bonding is a term introduced by Smalley (1997), which is the inherent natural tendency of humans to tie the intrinsic qualities of the sound to the extrinsic qualities in terms of source-cause relations, looking for shared associated origins.

Music Conservatory Composition Department building for years. See following photos I took on the day I received the piano in 06.11.2020 given in Figure 3.3:

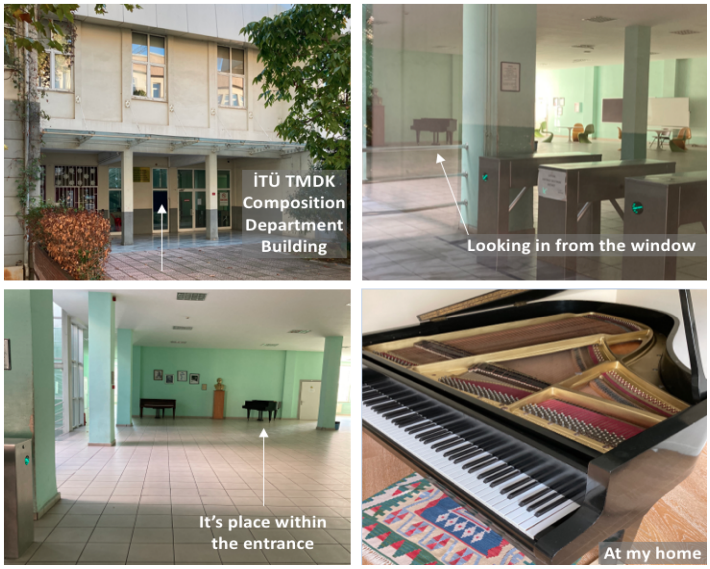

Figure 3.3 : The Piano I Worked Within This Research.

When I received the piano, it was an oddball in that it had unusual characteristics. The inner wooden body was swollen due to the extreme heat changes in the entrance, and consequently, the strings corresponding to the keys of the lowest two octaves could not hold tension of the strings. Together with Buyruklar, we decided to keep the corresponding bass register as wobbly bass strings, tuned to a lower octave, not as to cause further deformation to the inner structure of the piano.

Another characteristic of the piano was its ever-changing tuning; the piano could not hold a stable tuning, and it changed continuously as I played with it. This instability and idiosyncratic characteristics brought a valuable field into my practice, throwing me off of my game. It added another level of contingency —other than behaviors of things placed within its body—. By changing continuously (although very minutely), it brought a level of non-dependability to my practice.

As a means of working with this piano, I took up an inside piano practice. I began my inside piano practice in 2020, and although I have been playing piano for twenty-five years by then, moving away from a historically conventional practice into the inside piano technique invited an inexpert field of performance into my practice. This inexpert field that was added onto my previous conventional practice, provided a useful and important ground for my RC practice.

This combination of unfamiliar instrument and unfamiliar playing techniques allowed me to abandon my usual and habitual ways of engaging with the instrument, which used to employ a high level of control. Working with this specific piano and an inside piano technique, opened up a flexible practice that employs a heightened mode of attention to listening and engaging with material, both in the bodily/physical, and the sonic world. It opened up fields for exploration regarding movements, gestures, sound types and levels of working with unexpected and contingent events that occur in our relation. As uncontrollability and unpredictability moved away from becoming things that needed to be overcome, they became matters that carry potential for unique expressions in intra-active relations. Therefore, all these characteristics contributed to my agential materialist practice with the piano, and my pursuit for exploring a possible sound of us.

In the next section, I introduce the material things I use within the body of the piano, and explain the categorizations I have used in describing the material, sonic, and gestural possibilities within my own practice.

3.4.1.2 The agential "things" as parts of the piano

The material things used in my practice are ones that are not particularly designed for music practices; they are plucked out of their usual environments and coupled together with the grand piano. When applied within the music practice, they become parts of the instrument, and begin moving and sounding differently; and consequently, also does the piano and the instrumentalist. I explore what types of potential we might have together in this sounding habitat.

The levels of contingency in my interaction with the things vary. Some things have more predictable sounding results whereas others carry more ambiguous ones. As explained in section 2.5: "An agential materialist approach", the contingent qualities of things, bring forth instabilities and unforeseeable behaviors that are used as main tools for contemplation and action for agential, and dialogic relational emergences. The relations operate within a messy web of networks: The instrument behavior is dependent on the instrumentalist, and the instrumentalist is dependent on the instrument behavior, and both are dependent on the acousmatic agents within sound recordings. Within this network of dependency, no one has more value or power over the other, and the relations are negotiated within the practice.

In my agential materialist practice, each material thing both “do”, and are “done to”; highlighting both the positions of eventness and thingness inherent in them. The thingness within a sound could be heard through its material qualities; whether it is made of metal, wood, glass etc. The notion of thingness gives way to eventness through motion, movement trajectories and gestures, where the thingness is revealed within eventness. In my practice, the contact of the human body sets things into motion, in return evoking various impressions, ideas, and movements. And so, the collaboratory development of the sonic vocabulary as well as movements and techniques require close listening and interpretation of sound, and movement as entangled whole, throughout the practice.

Within my practice, I work with a particular set of material things. Each thing, has its own physical body, and therefore affords particular ways to be able to physically interact with a human body. Each thing has different levels of contingent characteristics, which in return, inform my interaction with them. The things also determine the categories of sound types, therefore the expressive sonic vocabulary. The material things are chosen for both their sound qualities and their movement-affording possibilities. As in the RC practice, the interest lies equally in the actions of the body as much as the sonic results without any hierarchical order in between them.

Much of the material things and techniques I work within this practice, are adopted from the techniques developed, and objects chosen from the inside piano performer, Magda Mayas. I adopt and adapt her choice of things, and their applications in my practice. The categories of things I use consist of a series of magnets, wooden, bamboo and plastic sticks, erasers and rubbers, fishing line and metal forks.

Next, let us look into the following six tables, Table 3.2 to 3.7 that illustrate categories of things, how they are placed within the piano, and interact with it, their sonic vocabulary, as well as their gestural affordances implemented by my setup.

Table 3.2 : Rubbers and Erasers: Sound Types and Gestural Affordances.

RUBBERS and ERASERS				
Material Type	**Placed in/on**	**Played by**	**Sound Type(s)**	**Gestures**
Various rubber and erasers, with different size and shapes	On the string	Rubbed against the string with various pressures and speeds.	Squeaking sounds; some noisy screeches, grinding sounds, and high-pitched tones.	Leaning in the piano, applying pressure on strings with materials and, moving up and down, along the string.
	Placed in between strings	When placed between strings, played by either plucking the string or playing the key.	Sounds consist of short, non-resonant attacks that lie in a spectrum of tone-noise.	Playing the keys in a conventional manner, or reaching in the piano and plucking the corresponding strings with nail.

Table 3.3 : Wooden and Bamboo Sticks: Sound Types and Gestural Affordances.

WOODEN, BAMBOO and PLASTIC STICKS				
Material Type	**Placed in/on**	**Played by**	**Sound Type**	**Gestures**
Wooden, bamboo and plastic sticks with various thickness and lengths	Placed between strings around mid and low registers for resonance.	Stroking the stick with fingers that are coated with rosin; applying various finger pressure and speed of movement	Fluty tones, that change pitch by 1) angle of the stick between the strings as the 2) pressure applied by the finger.	Using an upward stroking motion, by rubbing fingers. According to the length of the stick, the arms can move in small or bigger gestures, as the hands and arms move lower or higher above the piano.
			Creating noisy squeaks (with more pressure).	
			Stroking more than one stick to create a chord of fluty tones.	
		Tapping on the end of the stick by hand or mallet	Creates multiphonic tones with soft attack and short decay.	Gentle gesture of tapping of the end of the stick.
	Placed between high register of strings.	Plucking corresponding strings	Impulse attack, and multiphonics.	Plucked with nail.
		Playing keys	Changing pitch, creating multiphonics, and creating a dampened resonance.	Conventional keyboard playing.

Table 3.4 : Fishing Line: Sound Types and Gestural Affordances.

<table>
<tr><th colspan="5">FISHING LINE</th></tr>
<tr><th>Material Type</th><th>Placed in/on</th><th>Played by</th><th>Sound Type</th><th>Gestures</th></tr>
<tr><td rowspan="6">Standard fishing line, coated with resin, prepared in various lengths</td><td rowspan="3">One end of the fishing line is tied to strings.</td><td rowspan="3">Stroking the fishing line with fingers that are coated with rosin. Played by alternating hands that use various finger pressures and speed to change timbre and dynamics.</td><td>Smooth continuous tones</td><td rowspan="3">Using an upward stroking motion, while rubbing with fingers. Depending on the length of the fishing line, the arms can move quite up, creating large gestures, and big movements of arms.</td></tr>
<tr><td>Short stuttered sounds with iterative tones (when much pressure is applied).</td></tr>
<tr><td>With fast strokes and various pressures, a variety of squeaks, tones and noise material could be produced.</td></tr>
<tr><td>Long continuous tones.</td><td>If the fishing line is long enough, the body can move away from the piano quite a bit, exploring the space, around while maintaining the continuity of sound.</td></tr>
<tr><td>One hand holds the free end of the fishing line stable, pulling to create a tension in string; and the other hand strokes with the fingers in varying speeds and pressures.</td><td>With the right pressure of the fingers stroking, and the stable hand pulling the fishing line, produces various:
1) High register overtones, as well as,
2) A variety of squeaks.</td><td>One hand is still stable creating tension, while the other is moving up and down on the string along the length creating small to larger movements.</td></tr>
<tr><td>Fishing line is placed through strings. Wrapping around the strings that correspond to a single note. The two ends of fishing line are free.</td><td>Bowed by two hands holding from each end of the fishing line, and pulling in alternation.</td><td>Continuous tones. According to where on string the fishing line is along the string, the applied pressure of the pull, as well as the speed, timbre changes and overtones emerge.</td><td rowspan="2">The gesture is an alternation of the rising and falling of the two arms. There is a rocking motion, a sway, creating short/long, small/large gestures.</td></tr>
<tr><td>Placed across strings that encompass more than one note. The two ends of fishing line are free.</td><td>Bowed by two hands, holding from each end, and pulling in alternation. Resonates more than one string.</td><td>Continuous Polyphonic chords and/or cluster tones. According to where on the string the fishing line is, the applied pressure of the pull, as well as the speed, timbre as well as overtones change.</td></tr>
</table>

Table 3.5 : Metal Fork: Sound Types and Gestural Affordances.

METAL FORK				
Material Type	**Placed in/on**	**Played by**	**Sound Type**	**Gestures**
Various shapes and sizes of forks	Placed between the strings	Plucking corresponding strings with nails.	Inharmonic tone.	Gently plucking the string.
		Play corresponding keys.	Inharmonic tone along with buzzing.	Conventional keyboard playing.
		Pluck the handle of the fork.	Iterative tone-based sound, along with a buzzing sound occurs. Together with the pedal, timbre changes, creating a metallic buzz and more inharmonicity.	Gently tapping on the magnet with finger to initiate sound.

Table 3.6 : Magnets: Sound Types and Gestural Affordances.

MAGNETS				
Material Type	**Placed in/on**	**Played by**	**Sound Type**	**Gestures**
Various shapes, sizes and strengths of magnets	Placed on the strings	Tapping on side or top of the magnet and letting vibrate with or without pedal.	Iterative, a rapid series of onsets, note-based sound.	Gently tapping to initiate sound.
			If it is a ball magnet, it could be tapped to move along the string, creating a glide in pitch and mostly ending in a fast sway causing an iterative sound.	Gently tapping to initiate sound.
			The ball magnets could be placed on surface of flat magnets and vibrate on top of them, causing complex tones.	Gently tapping to initiate sound.
		Throwing magnets on strings.	Attack impulse.	Arms move in various heights and angles to throw the magnets; the magnets could even be thrown from a relatively far distance into the piano.
		Magnet placed on string, and playing the corresponding keys.	Creating harmonics, and multiphonics.	Conventional keyboard playing.
		Sliding up and down the string length.	Creating a glissando.	Leaning-in the piano, moving up and down the string as much as the body allows.
	Placed on the metal case	Hitting metal frame, creating percussive sounds.	Attack impulse.	Leaning-in the piano. knocking with knuckles.

Table 3.7 : Hands: Sound Types and Gestural Affordances.

HANDS				
Material Type	**Placed in/on**	**Played by**	**Sound Type**	**Gestures**
Fingers, palm of the hand, and nails	On keys	Playing keys conventionally	Conventional Piano sound: a note and a predictable amplitude envelope.	Conventional keyboard playing technique.
	On strings	Plucking with nail	Tone/chord depending on how many strings are plucked, they are either short or longer depending on the use of pedal.	Gentle and small gestures of upward motion, plucking with nail.
		Rubbing strings with fingers coated with resin	Creates, squeaks and tones. The timbre and tones change with the applied pressure.	Leaning in the piano, applying pressure on strings with fingers and moving, up and down the string.
		Hitting with knuckles or palm	Percussive sounds with some pitch content, has short decay; if pedal is used, reverberated version of the sound.	A gentle gesture of knocking or hitting the strings.
	On metal and wooden case	Hitting with knuckles	Percussive sound, an attack impulse, or if pedal is used, a reverberated version of the sound.	Gentle knocking gesture, on metal or wooden case.

Now that a general view of the material, sonic, and gestural capacities of the instrument have been introduced, with the next section, I move into the tactile and movement-based practice stage, introducing into my practice in com-posing with these agents.

3.4.1.3 My application of new materialist practice: Working with contingent material agents

This section introduces various perspectives I implement working through the third stage of the RC model: the tactile and motion-based stage. I explain how working in a new materialist practice informs my playing; as well as the how, why, and what of the matter of contingency in my practice.

Let us begin by tying the thread of the aural analysis, into the tactile and movement-based performance practice, looking into the translation process that occurs in the switch of modality, and build from there.

My initial idea was to use the sketches of aural analysis as a performance score for the tactile and motion-based part of the practice. As the relational plane with the contingent instrument/things are already quite unpredictable, I wanted an element to further provide focus, bring limits, and guide my playing. However, I quickly realized

that this was going to lead me to interact with my instrument in a "transcendental" manner, where my choices and my interaction would have needed to both conform (to the score), as well as control (material agents), setting up a linear and top-down plane for relations.

Let us remember that moving between different modalities are understood as performing cuts within the RC practice. The cuts that occur in this stage happens as the body thinks beyond language and performs a pre-articulated thought through motion and touch. In order to work through an immanent practice, I need not to transfer information gathered by previous modality, but to make imperfect translations of it by articulating cuts, so that each modality would have freedom to listen, think, explore and express freely within its own mode of functioning. Primarily, informed by an immanent model, the goal of the RC practice is for modalities to reveal relations rather than to pin them down, to generate and to produce connectible ends for new rhizomatic connections, and do this through a situated position and practice.

Therefore, early in my practice, I decided not to use the sketch from aural analysis as a score for the tactile and movement-based performance stage. The tactile and movement-based stage is already informed by the very act of making the aural analysis. By not being obedient to the score, the moving-touching body was free from complying to a predetermined ground. It is important to point out that the freedom mentioned here is not a detached one, but one that is already woven within a network of relations that informs it. In this stage, the practice is informed and situated by a set of accumulated experiences gleaned since the beginning of the act of "going visiting"; which does not function to limit freedom, but to provides orientations and guidances.

Having this type of informed-freedom for tracing how my moving and touching body thinks through senses and gestures in tandem with the instrument, enabled me to explore the potential of this modality. It allowed me to express pre-articulated thought emerging in real-time, informed and expressed through touch and gestures. This way, rather than trying to capture and transfer exactly the content of the previous stage, bodily motion and touch aims to work itself out through itself. As a result, in such an act, there is no smooth and linear transition from one modality into the other, the cut is a *sine qua non*.

This being said, in the RC practice that I explore in this dissertation, the cut is always situated through a cutting-together-apart. The "together" part of the cut happens when the plane in which the cut occurs affords feedback into previous and/or future decisions, breaking the linear course of the information flow. The information generated by the moving and touching body, provides information for provisional reading to the previously generated set of information, and also informs the next one. As in Deleuze's immanence, becoming is not becoming to be, but an ever continual becoming something different; and rather than moving in linear processes, the acts happen in a dynamic field of relational negotiation.

Therefore, in the RC practice, the moving and touching body is situated and moves within an entangled network of relations, making/breaking connections. The body is an active thinking/expressing agent, that affirms a holistic practice rather than a Cartesian (mind-body divide) one. This holistic understanding makes a non-linear, modular, and multivalent practice of "cutting-together-apart" possible. The challenge in such a switch lies in creating coherent and traceable threads, along with interesting, novel, innovative forms of movement in socio-sonic relations.

Working through such a frame of mind, I practice by rehearsing possible responses with my instrument and the acousmatic agent(s). Through a repetitive, improvisatory investigation, I explore a variety of possibilities by generating and producing multiple relational results, through my practice. Working through this stage, by listening, playing, and interpreting, I look for idiosyncrasies that emerge from gestures, sound types and behaviors that are unique to the instrument, to me, and our relation.

Next, let us continue with some focal points of my practice within this stage. In this stage, my practice entails paying attention to touch, movement of the bodies, the sensation and texture of the objects. As vibrations are being picked up by muscular and tactile inputs, they are interpreted and set into motion in the immediate moment. As a pianist (performing with the inside piano), the body involves quite a lot of embodied skill, which entails the muscles and flexibility of fingers, hands, arms, shoulders, feet, legs and torso. On the other hand, material things have their own physical body and can afford certain movements and sonic capacities together with a human body. Therefore, both my body and bodies of material things afford certain ways to interact with each other's bodies.

So I ask: What can fingers, hands, arms, skeletal alignment etc. do in relation with my instrument? Along with: What can magnets, sticks, fishing lines, piano, forks etc. do in relation to my body? What types or sonic relations may we produce? Along with these questions, I also ask what can certain symbolic meanings, metaphorical translations, and narrative fabulations do to our relation?

I start with the recognition that I myself, as an instrumentalist, have certain presuppositions, and anticipatory tendencies in producing a set of techniques for playing. The body expresses what it already knows, through its lived experience, memory and capacities. And moving beyond these ingrained habits is no easy task. So, I look for practices and perspectives that could bring about novel forms of interaction for my performance, which might pave the way for generating things anew without falling into a continual chain of habits. I do this by changing and re-contextualizing perspectives; by doing so, I am encouraged to question, and interrogate the nature of my own acts, which in return, opens-up possibilities for novelties and originality to emerge.

Working with contingent agential materiality, affords re-contextualization on many levels, and allows my practice to move beyond habitual thinking and expressions. It does this by inviting a level of estrangement into the practice. Being in relation with an unpredictable, non-consistently responding contingent instrument, creates a level of estrangement from self as it abandons one's own habitual means of thinking and acting. First let us look into how contingency functions in the basic level of my relation with my instrument, and then, look into various perspective shifts that provide other levels of estrangement, allowing me to move beyond prescribed modes of practice, as well as habitual expressions.

My practice process is realized through rehearsing various possibilities through a constant series of embodied feedback loops. In these feedback loops, the levels of contingency depend on both the instrument body, and my body. In my practice, I work with a series of things placed within the body of the piano (as presented in the previous section, Tables 3.2 to 3.7). The determining factors of contingency relies on 1) how things are placed within the piano, 2) how things are set in motion, and 3) contingent capacities inherent in them. This means that the matter of contingency is co-created: I am contingent upon it, as it is contingent upon me. Through our relation, together, we configure and determine various levels of the contingency; emerging through both of

our affordances and capacities. So, it could be said that contingency becomes something that moves between the agents, it is adaptive and intra-active. And in my practice, this is where I explore agentiality of material things.

Working with the unstable, not fully controllable and not foreseeable conditions, with a non-standard instrument, produces sounds that are always a bit different, never the same, which in return, affect my responses. Such a condition requires the instrumentalist to listen attentively and to constantly adjust one's own responses; it allows the instrumentalist to practice response-ability by switching between adapting and adopting, chance and control as well as making and breaking connections. These conditions create a fragile balance during the practice, which at times do pave way for both the new, fresh and interesting to occur, as well as enabling the performance to crumble down and fall apart.

Working with contingent conditions entail knowing that something during the performance can easily collapse; and that the fragile balance might tip off if one moves too much beyond the materials', or the one's own capabilities. The instability of the relation between instrument/instrumentalist might result in losing fluency, which eventually could lead to mistakes to occur during the practice. Whenever these moments occur, as a performer who was educated in a Eurogenetic classical music tradition, I am trained to find them awkward, not as aesthetically pleasing, to be embarrassed etc. However, the more time I spent with contingent materials, the more I began appreciating the awkward moments, slippages, even moments when performances fall apart.

I came to experience that in the awkwardness and slippages, there is a tension, an energy that holds potential to be connected to something interesting and valuable. So, within my practice, I am interested in exploring what would happen if I push that tension. The challenge lies in not over tipping this threshold for long periods of times, and moving in spaces that are close to this threshold in order to heighten the attention and to listen into this median space, where novel and interesting things about the instrument, me and our relation might be revealed/expressed. Inviting the tension of the unknown, and the element of not fully controllability brings a fragile, open minded and attentive state into my practice. Such a perspective holds potential to change the understanding of what failure is. Rather than reading failure as an end-stop, this perspective valorizes the so-called failures and mistakes in the practice; which in

return, affords a fruitful ground for practicing response-ability, as it looks for abilities to keep responding.

In working with contingent agential materials, I began my practice by exploring coherent and unstable, sonic and physical behaviors of things, and familiarizing myself with them. In my practice, my interest lies in looking for thresholds where the indeterminate and unstable turn into the predictable and stable, and to find "sweet spots" to explore the tension of energy, and to work and perform through them.

Once the practice with the instrument is somewhat familiarized and sweet spots of practice are more or less explored, I find that the practice may further be destabilized by perspective shifts providing new levels of estrangement into my practice; overthrowing my inclined and habitual expressions. These could be done by: 1) switching intentions, contexts, musical tools, perspectives, gestures and keeping the objects the same, or by 2) changing objects and keeping intentions, musical tools, contexts, perspectives and gestures the same. I call this switch, modality translations. Modality translations entail applying and/or developing a response that stabilizes certain parameters in relation, and then, transferring one parameter in relation, into another parameter. These acts could entail, changing objects yet keeping body movement same, keeping object same and changing movement, changing the TSUs or thinking through multiple TSUs at once, switching between various performative postures like playing-on, playing-to, playing-in, playing-by, being played by, and the list could go on. Each engagement, holding one parameter of the previous practice intact, brings in a new perspective that performs cuts, and destabilization, which in return, provides fresh perspectives for thinking and doing.

As a result, this switch in engagement, creates multiplicities by providing a plane of consistency between these transfers. So, the act of play then, becomes an act of moving in between these two states recursively in a playful manner; stabilizing the unstable, and unstabilizing the stable through relations. Such play paves way for new insights, and generate new modes of sonic relation, along with providing a field to trace attentional dynamics along the way for cultivating a self-reflective practice.

As the practice itself is a process, I do not know what is to emerge before my engagement, and so I tread carefully. My improvisation practice is highly tied to the situated moment, bodies, the relational ground and is therefore, not exactly repeatable.

It is about marking moments in time-space through a situated practice. And working through such grounds, continuously allows the self to listen to the temporal flow of one's own listening and the expression through constant self-reflection, which allows one to transform one's practice along the way. My practice is an ongoing practice, and I am still developing my sonic and gestural repertoire through various forms of trial and error.

Now that the material things and the basic posture of working with them are introduced, the next section explains how the material/human relation responds to acousmatic agents. I introduce the two relational models that guide the tactile and movement-based responses, what they produce, and how they are presented within the resulting work.

3.4.2 Two response models: The similarity and difference responses

In the third stage of RC practice (the tactile and movement-based practice) is guided by a tool consisting of two response models. This is the juncture where instrument and instrumentalist connect together with the acousmatic agent(s) in recordings.

At this point in the practice, the self is already entangled within a complex web of relations: The self works together with material agential things, acousmatic agents within recordings, is guided by temporal semiotic units, as well as the discourses within the context of this dissertation. Along with these, at this stage, the practice also has produced the initial aural analysis, and therefore has informed the tactile and movement-based practice. Entangled with all the above, the practice works with a tool that further focuses and guides this stage: generating expressions by switching between two response models called difference and similarity.

The similarity and difference responses are informed by, and re-inform relations through sounds (types and acoustic qualities); their behaviors, orientations and intentions (gestural movement trajectories, motion-based behaviors along with their contextual meanings); and, organizations of larger structural levels, along with the overall narrative (connecting threads in larger structures of form and story). Let us begin by introducing what similarity and difference responses are, then explain why they are chosen for this practice, and finally how they function within the RC practice.

Similarity response is about finding and tracing similarities with the acousmatic agent. It is about empathetic thinking; it thinks and acts through commons and resonances,

mimicking and imitating. It looks for a behavioral continuum and a level of homogeneity. However, this is not about direct mimesis that aims to exactly reproduce, mirror, copy, or substitute the acousmatic agent, replicating it elsewhere. Rather, it entails a generative approach that is interested in self-reflection, drawing on the idea of what might becoming the other be like. There is an underlying trans-desire, looking for contagions, extensions, expansions, completions and imitations, which builds on various musical characteristics of the acousmatic agent.

The difference response on the other hand, is about differentiating from the acousmatic agent, and looking for heterogeneous forms of relation. It opposes, diverges, cuts, divides and digresses from various musical characteristics of the acousmatic agent. The difference response aims to figure independent, autonomous, and differential forms of co-existing. However, the word independence is a tricky word in music practices; whenever sounds are brought together in the same space-time continuum and heard simultaneously, they are always entangled with one another; there can never truly be an absolute separation. As Denis Smalley points out:

> [t]rue independence is not a musical reality. It is rare if not impossible for simultaneously existing events to be unrelated, simply because placing them together in a musical context confers connection upon them. (Smalley, in Emmerson, 1987, p.88)

However-contrasting the two agents' sound types and their behaviors may be, they still need to make musical meaning and sense together, because they share a sonic space in which they co-habitate. We can then say that the act of differentiating occurs in a shared musical space, where there is no absolute separability. Therefore, the understanding of differentiation is explored through this understanding of independence: an entangled and relational one.

I work with these two response models for the RC practice because they enable constraints, yet allow space and freedom for expression, and provide a level of coherence by offering repeated structures in the practice. They act as reference points, guiding and informing my listening, thinking and acting. Along with these, generating expressions with both the similarity and difference responses produce plural perspectives; and by doing so, functions to overcome one's own reflexes, habits and inclinations.

In my practice, the application of the response process does not aim to exactly pin down and represent what an ideal similarity or difference response would be. It is not interested in looking for pure and absolute translations and interpretations of similarities or differences. The aim is to generate and trace the effects that these relations have on me, others and our relations, through a self-reflexive practice, exploring a multivalent set of possibilities. Therefore, I intentionally don't determine and assign certain characteristics that should be explored and interpreted in certain ways within the practice, as to leave space for chance and discovery.

Both the similarity and difference responses rely on interpreting sound through technical and conceptual guidelines. Both the responses listen to the acousmatic agent to create similarities or differences with them following parameters of spectra, timbre, morphology of sound type, gesture, energy/motion (TSU), as well as structure, form, and narrative. By relying on interpretation of similarity and difference responses, with a focus on these parameters, provides a structured-enough guide for coherence, yet open-enough to pave way for discovery.

It is important to point out that, the similarity response is not solely an act of conjoining with the other, nor the difference response a dis-joining. The boundaries of similarity and difference are difficult to define precisely, as each include forms of the other within it. In my practice, there are always various elements of similarity found in difference response and vice versa. For example, sometimes the response differentiates from the gesture level yet it shares similarities with the other on the spectral level, or the response is similar with the other in terms of sound types, yet differ on gestural level etc. Or on a different meaning making mechanism: even though in similarity responses, I imitate the sound types of agents (for example that of a bird sound) with my instrument, the difference between the real/synthetic, original/imitation of bird sound (of sound sources), on the basic level, really differentiates them. Therefore, the two response categories guide the practice, however they do that by being imperfect categorical separations. Their function is not to be interpreted as scriptures to be perfectly executed.

In the practice, as the self responds with similarity and difference responses, the tightly knit boundaries of the two thought-universes loosen up; in the end, both acts become forms of relating in difference. Enacting both the positions (difference and similarity), allows the self to perform another layer of cutting-together-apart, bringing further

perspective into the practice. The filmmaker, writer, literary theorist, Trinh T. Minh-ha's, "inside-outside opposition" frames the understanding of working with both positions of "I am like you" and "I am different" rather eloquently. She states:

> The moment the insider steps out from the inside she's no longer a mere insider. She necessarily looks in from the outside while also looking out from the inside. Not quite the same, not quite the other, she stands in that undetermined threshold place where she constantly drifts in and out. Undercutting the inside/outside opposition, her intervention is necessarily that of both not quite an insider and not quite an outsider. She is, in other words, this inappropriate other or same who moves about with always at least two gestures: that of affirming 'I am like you' while persisting in her difference and that of reminding 'I am different' while unsettling every definition of otherness arrived at. (Trinh, 1997, p. 419)

As the instrumentalist enacts relations through similarity and difference responses with the instrument, and together with the acousmatic agent. There are multiple levels of statements of "I am like you" and "I am different", where the self, and the instrument have potential to become inappropriate others. This is because they insert themselves in the acousmatic agents sound world (fixed-recording), that stands on its own without them. Therefore, a socio-sonically "polite" inquiry becomes essential, as the very act of joining-in with the acousmatic agents with similarity and difference responses, proposes that the audio recording itself becomes a communal and shared space that holds all agents within it. Here the relational basis for the responses are mainly enacted from a position of responding "with", "in" and "by" (material and acousmatic agents), rather than solely responding "to" an external and objectified other; although responding "to" is not altogether eliminated and does occur at times. The reason for this is that, both the similarity and difference responses are about movement, and they operate in flux, enacting and exploring various postures and orders of relation. The two responses created —by instrumentalist and instrument— in the act of "going visiting" the acousmatic agent, is about an investigation of a possible sound of us. It is about weaving together a possible space of com-position, illustrating forms of crossing and uncrossing territories of one another through a "polite" negotiation. These negotiations include hesitations, mistakes and uncertainties, always swaying between the predictable and unpredictable, questioning and stating, moving within the

"trouble[30]" of staying response-able. The responses are situated expressions that are meant to give and offer in order to bring about something together; they affirm non-resolution and a transformative state, and always have consequences. From this end, this stage of the practice ties in on Haraway's understanding of tentacular thinking. She states:

> The tentacular ones make attachments and detachments; they make cuts and knots; they make a difference; they weave paths and consequences but not determinisms; they are both open and knotted in some ways and not others. (Haraway, 2016, p.31)

By attaching/detaching, cutting/knotting the practice produces multiplicities, and explores relational possibilities in a nomadic way rather than looking to be settled in a center-based belonging. The performances are double articulations of self/other, inner/outer, similar/different, centered/de-centered positions. Consequently, the similarity and difference responses are not applied as opposing forces; they are not contradictory. One response does not function to negate the other, or lead to the collapse of one another; both are valid and necessary parts of the relational experience. Through the practice, enacting both responses provide a ground to generate and overcome one's own reflexes, habits and inclinations. This way, the practice affords flexibility, resists closure, invites conversation, moves from within a philosophy of the median, fostering a continuum between two poles of relational reference. The connectible ends become detachable, connectable, reversible, modifiable, producing various perspectives and consequences.

Therefore, situated in a series of relational acts, the RC practice expresses both "I am like you and I am different" in one go, practicing a cutting-together-apart. And by working through forming relations in difference and differentiating in relation, the practice deals with a paradox. By disrupting the linear and one-way processes, it leads the self into new ways of thinking, feeling, engaging, moving, creating results that feed back into cultivation of response-ability. The whole of the practice is about developing the skill of giving attention, noticing, responding and negotiating in relation, to do this all politely through constant reflection.

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[30] Here I am referring to Donna Haraway's "Staying with the Trouble" (2016), as explained in section 2.4.1.

Throughout the RC practice, my listening/thinking process is firmly situated within the abstraction of musical thinking provided by companion tools that guide my listening and performing. My interpretation of musical abstraction and metaphorical thinking guided by the TSUs and similarity/difference responses are the contact zones in my practice. The sonic thinking they provide brings together the concepts, theories, and practice in a socio-sonic field.

Once the multitude of ideas are produced, then the evaluation stage begins. The evaluation stage looks back on what is produced; assesses and assembles the results producing situated responses that express certain views and not others.

3.5 Stage Four: Evaluating and Re-Situating the Instances

The final stage of the RC practice is the evaluation stage where a reassessment response is made. Here, the self somewhat becomes an archeologist; I look underneath all the notes, sketches, and sound recordings, reflecting on my own experiences. I pick up each element, dust them, and looks for possible connections, moving back and forth between the lived experience (1st person) and objective account (3rd person) of what had happened. The evaluation process might result in re-analyzing and re-performing the responses that were given in previous stages. This stage is not about policing the creative process, but by further contemplating on the relations, to express and offer a perhaps a different perspective.

In my practice, this stage is where I work with sound recordings through electroacoustic means. I listen into the sound recordings of the responses, look at my analyses and personal notes, and assemble my relational experience into two distilled relational results: similarity and differential responses. My goal is not to pin-down, simplify, solve or somewhat tame the generated material, but to trace through self-reflection, what had mattered and meant something to me in the com-position process; to express it, and to make it available.

The final evaluation response stage moves against the grain of previous stages of the practice where the incentive was all about generating multivalent possibilities. This stage aims to produce an evaluated and distilled account of the lived experience, and by doing so, it produces a particular and partial view, a single snapshot of the lived experience.

By sounding from somewhere —tied to specific bodies, time and space—, offering a particular and partial view, the practice evades a relativist posture that claims to sound from anywhere, everywhere, and nowhere equally. With such a posture, responsibility is taken and negotiation is invited; and what Haraway calls "joining of partial views" becomes possible. As Haraway states:

> Situated knowledges are about communities, not about isolated individuals. The only way to find a larger vision is to be somewhere in particular… rationally. Its images are not the products of escape and transcendence of limits (the view from above) but the joining of partial views and halting voices into a collective subject position that promises a vision of the means of ongoing finite embodiment, of living within limits and contradictions-of views from somewhere. (Haraway, 1988, p. 590)

Following such premise, the distilled responses resulting from the RC process, are not stable grounds that close off the dialectic; they are resources that lay out connectible ends for others to trace and negotiate, aiming to open up further dialogs.

As a result of representing a partial and embodied work, the ontological position of the distilled responses are not exact, perfect and fixed representations of the theories and concepts framed within the dissertation. This means that they are not taken in hand as static objects of representation; they might very well be representations of questions themselves. However, this position I argue, does not invalidate that the distilled responses are musical works in and of themselves, and do not need an external source to stand on their own. They are not a slave to the process; they come from it, yet become an actor, an agent in and of themselves. Here, let us glance into Massumi's exemplary method, as it provides a valuable perspective for understanding the ontological position of the distilled response as undertaken within the RC practice. Massumi explains an example stating that:

> It is one singularity among others, which, however, stands for each of them and serves for all. An example is neither general (as a system of concepts) nor particular (as is the material to which a system is applied). It is "singular". It is defined by a disjunctive self-inclusion: a belonging to itself that is simultaneously an extendibility to everything else with which it might be connected (one for all, and all in itself). (Massumi, 2002, p.17-18)

We can say that the distilled responses (com-positions) sit at a plane which Massumi calls "disjunctive self-inclusion" and are expressed as examples. The distilled responses express a double articulation: 1) As the self cannot make an absolute transfer of the content of the process, into the distilled work, it enacts multiple cuts during the process. By distilling experiences into a singularity, it produces something that belongs to itself, a thing that can work itself out through itself. 2) On the other hand, the distilled responses hold threads of connections to the whole experience of the practice, therefore are inextricably entangled. Nonetheless, the distilled responses are not monolithic, semiotic representations, or ultimate, all-encompassing manifestations of a work. Therefore, in this dissertation, the distilled results exemplify theories and concepts this way, functioning at a juncture of a true cutting-together-apart.

As a result, listening to the distilled com-position, the connections and relations, may or may not be initially apparent on the surface of the audible level; some are hidden and some are disclosed within it. This attribute is something that the practice affirms, because the incentive is not to essentialize the process within the work, but rather, for the distilled response to be a situated result as well as a potential connectible end, that may open up to other possible "actualities".

As a result of such ontological posture, the form in which the work is represented should be one that affords and enables communicability of its multivalent ontological position. The following section explains the form of the means of representation I chose to work with, the reasons for doing so, along with the function of it.

3.5.1 Form of representation: Presenting the RC practice output

In my practice, I choose to represent the distilled responses in a form where various outcomes from the stages of the practice are made available to the viewer/listener; highlighting the multivalent and processual stance of the RC practice. I'll begin by introducing the visual artist, psychoanalyst and feminist theorist Bracha L. Ettinger's (1992) neologism "metramorphosis", as it has inspired me in figuring the form of representation for my RC practice. In biology, metamorphose is characterized by a change that happens within an entity, and this change does not include the state before its change; its previous self no longer exists. In Ettinger's neologism "metramorphosis", by an additional "r", the meaning is different. "Metramorphosis"

contains both the changed entity, as well as the entity before the change[31]. Let us look into how "metramorphal" thinking has inspired the structure of presentation of the com-positions.

The distilled com-positions do not need an external source to stand up by themselves; they are meaningful musical entities in and of themselves and therefore could be presented solo, as they are. However, in pursuit of representing them in the context of the RC practice, the form of representation should be one that could draw threads of connection within the network of the relational acts, and one that is instrumental in illustrating the modular process of the RC practice. So, I represent the distilled com-positions together with some outcomes that point out to various processes within the practice. This provides context, and further inform the viewer/listener, which in return allow them to trace and understand the process, if they chose to do so. Accordingly, my objective is to provide accurate and traceable means for the viewer/listeners to understand and follow the process. From this place, I begin by asking: What are the documentations that could be traceable and functional for the viewer/listener?

My aural analysis sketches, the analysis videos, autoethnographical notes, and distilled responses, each have different potentials, strengths and weaknesses in representing various aspects of the research. In the format of a dissertation, the figures, videos, sound files are wrapped in and around text. This is useful for dissecting and examining the process, however for those who wish to be guided by a non-linear and modular structure of the process, where the main elements consist of media like visuals, sound files and videos, along with some guiding text, it makes a stuttered flow of information.

Therefore, along with the detailed accounts of my practice presented in this dissertation, I decided to create an external source that compiles and compresses various information presented in this dissertation to a bite-sized, and modular form, where the dissertation and it could refer back and forth to one another as complimentary sources. And, I decided to compile and compress this information in an online open-access website, designed for artistic research called the Research Catalogue. Research Catalogue offers novel means for presentation of works, where

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[31] Ettinger (1992) ties "metramorphosis" to the Greek word *metra* that comes from meter or mother. She states that the womb is the place metramorphosis, of pre-birth where mother/infant reciprocity happens; it is a place where both singularities and entangled multiplicities exist; not one, not two, and both, expressing a form of together-apartness.

conventional modes of presentation do not suffice in explaining the work. The page I created online (which are called expositions in the Research Catalog system), does not explain the detailed account of my practice, but provide a condensed and compact format of information allowing the viewer/listener to be tracing the process, mainly led by graphics, sound files, along with short informational and contextual text. For people who visit the website, and would like to get a more detailed account of various aspects of the research, I refer them back to this dissertation; and conversely, for people who are reading this dissertation, and would like to follow the process in a compact and modular format, they could refer to the website.

In the website, each media is represented in their respected format, as figures, videos, text, and sound files. As each media is appropriate to the modality it is produced in, so I decided to display and articulate each stage through its relevant media, pointing out, and highlighting various points of the practice; reflecting the multivalent and modular structure of the RC process.

The modularity of the presentation allows the viewer/listener to navigate either in a linear way following a path laid out by the website; or a non-linear way, where they can jump to various sections and processes within the practice, by using interlinks. The viewer/listener may experience: 1) the process of the RC practice as the work itself, or 2) the distilled com-positions as the work itself, which is determined by their choice to be informed (or not) further by the process. This way, the online exposition reflects the ontological posture of the process of RC practice and the distilled work, expressing their together-apartness as explored within the RC practice.

In the online exposition, I introduce a brief context, outline the methodology, introduce the tools that are key in the practice, then move into introducing the works. For the overall format and the information content of the representation of the musical results, see the following figure, Figure 3.4:

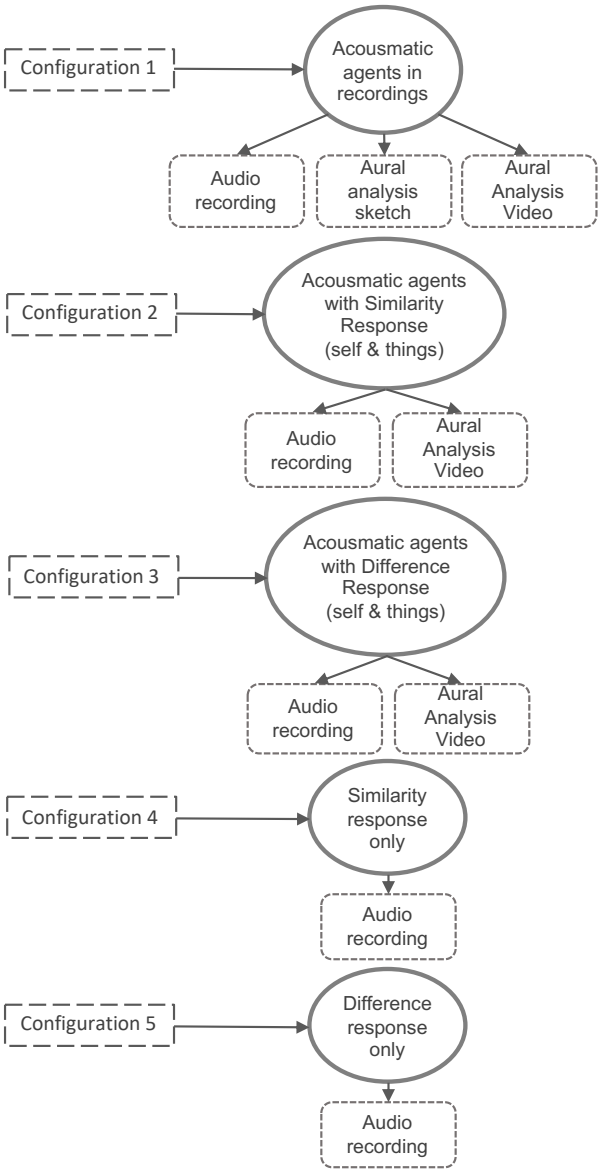

Figure 3.4 : Format Representing the Com-positions.

As could be seen in Figure 3.4 above, the presentation format of com-positions consists of five configurations: a) The acousmatic agents' audio recording is presented as it is. Along with these, I present with my aural analysis sketch, some autoethnographic notes as well as the video analysis of the acousmatic agent; b) The evaluated similarity and differential responses together with the acousmatic agent is represented. These are presented as audio files, as well as analysis videos; and finally; c) The similarity/difference responses that are presented by themselves without the acousmatic agents, somewhat like the remains of the affective traces the other had on the self. These solo responses are presented as audio recordings. Although within the scope of this dissertation I do not analyze these solo responses, I do provide them for the viewer/listener if they wish to further evaluate these results. These solo responses

(remains of the relation) have potential to reveal, and trace how much of the musical meaning of the response is contingent upon the other, how much of itself stands on its own, and the type and level of the similarity/difference responses.

As seen in Figure 3.4 in the previous page, creating a modular and metramorphal format, the representation ends up with five different meaningful configurations that are complete and may be presented in and of themselves. See the online exposition for accompanying information.

Now that the concepts, theories, methodology, process and representation of the RC practice is laid out, with the next chapter, I illustrate a possible RC practice through my own practice. I go visiting a human and a duo of swallow birds, within two different com-positional contexts.

4. TWO EXEMPLARY COM-POSITIONS

Within this dissertation, I present two musical examples where I go visiting and trace socio-sonic engagements with two different acousmatic agents: a human and a duo of swallow birds. Each agent is unique and have different contexts in which they sound, therefore, the engagement processes offer explorations into two different com-positional contexts.

The two musical com-positions in this chapter could be thought of as vignettes, as the two definitions the word vignette fit the RC practice incentive well. The word vignette is used to describe short pieces of writing, music, acting, etc. that express typical characteristics of someone or something. Both the com-positions presented in this chapter are short in duration —approximately three minutes—, expressing short sonic stories of going visiting and com-posing. In the RC practice, the incentive is to express emerging characteristics of the relation between the self and other, within a com-posed environment. Therefore, the self does not intend to represent others by somewhat making a musical portrait of them, or to "speak" of the others, but to "speak" with them, and alongside them, made in the spirit of being in "intra-actions".

The second meaning of the word vignette comes from the visual domain; it expresses a gradation of edges of definitive border-lines. This definition is also conveniently appropriate for describing the com-positions, as the distilled works sit at a double articulation: standing for themselves, belonging in themselves, as well as entangled within the larger context and network of connections. This ontological position of distilled com-positions, allows the border lines to be flexible, affording to move beyond singular fixed and static modes of existences. With the next section, I introduce my com-posers, and explain how I work with their voices in pursuit of a possible RC practice.

4.1 Introduction to My Com-posers and Working with Acousmatic Voices

Two examples I com-pose within this dissertation, are made together with a human agent and two bird agents. My initial interest was to work with musicians that have a

sound-based contemporary improvisation practice; and I begin working with a singer. Later through an unexpected encounter with a couple of swallows, the next agents I worked with turned out to be two birds. Although I did not initially set-out to work solely with the voice, I ended up doing so. As I interacted with these agents' voices, I quickly realized that I was pretty much drawn to working with voice. And when I trace back my process, I see that it has several reasons. Voices are one of the most personal expressive and communicative tools; they are idiosyncratic, intimate and are imbued with the presence of bodies. On top of this, as Berio (2006) stated: "The voice, whatever it does, even the simplest noise, is inescapably meaningful: it always triggers associations" (p. 50). Because the voice has a strong presence, triggering immediate responses, once it enters the musical domain, it sounds from within the sonic surface of the piece. Hence the voice expresses an immediacy of a bodily presence in the sonic surface, working with it, produces various levels of possible interaction in socio-sonic relations. One obvious one is the solo/accompaniment duality that occurs on the sonic layer, creating immediate separation. Such separation, made it easy for me to distinguish my responses from the acousmatic voice, and therefore making it more difficult for me to overpower the acousmatic voice. This in return, provided a good starting point for my practice as a "polite inquirer". On the other hand, when I want to blend in with the acousmatic voice, I came across moments where I found myself masking and easily overpowering it. Such position afforded me to constantly adjust to be able to tune in with a "polite" practice, as I negotiated these positions.

Along with this, working with voices aid the incentive of the RC practice to engage through movement and embodiment. As the voice is tied to the length of breath, which is tied to a temporal limitation, working with voices means that I am working in time frames of voices, which in itself hold gestural implications. This help-inform my listening and performing with movement and energy/motion trajectories. Through such articulation of motion, there is an openness and invitation, to give prominence to a bodily, synchronized and entrained movement in socio-sonic relations. This in return, contribute to facilitating response-able processes in com-posing.

Working with voices is something, and working with acousmatic voices is another; non-visually present voices sit at a complex position in the socio-sonic relational domain. The acousmatic agents are situated within a dual position; holding the real, present and physical together with the unreal, simulated and disembodied positions. In

my practice, rather than taking dualities as indicators of discontinuity, I focus on developing a continuum of connections between the two positions. And working within the medium of acousmatics afford such engagement, because the historical convention of acousmatics is interested with the play between the abstract and referential, intrinsic and extrinsic, presence and absence. These notions of duality are foregrounded aspects that lie at the heart of the aesthetic characteristic of acousmatics. So, working with acousmatics allow me to perform a dual articulation of a cutting-together-apart throughout my practice: By affirming dualities of presence/absence, abstract/referential, active/passive, I try and render both capable within my practice, as I move through them, and between their median positions. By such, I get to explore various degrees of postures, behaviors, and expressions of power offered by these positions, which feed back to the overall relational engagement. Working with dual articulations through the practice, strongly affirms and maintains the performative and energetic force of relational movement, making possible a valuable ground for negotiation, and fascilitating a response-able practice.

As the notion of embodied agentiality holds important grounds within the RC research, understanding how the practice positions itself within the relation plane with the acousmatic voice is important. For this, let us briefly visit Michel Chion's (film theorist and electroacoustic composer) term "acousmêtre". Chion, in his "Audio-Vision" (1990), introduces the term "acousmêtre" for a voice that is not seen on the screen, but heard i.e. appearing as an acousmatic character on screen. He explains: "We may define it as neither inside nor outside the image" (p. 129). According to Chion, the dual position of visual disembodiment and the embodied acousmatic voice assigns power to the voice. In the visual domain, there is an evoked anxiety when a voice is not grounded in a particular body. On the other hand, the visual embodiment of a voice, drains it of its "supernatural" powers, highlighting the ordinary, human and vulnerable i.e. making it real. He states that in film, the acousmêtre is powerful because it has the power to see, know and act upon everything; it is mysterious, imaginary, and ambiguous.

In the domain of acousmatic music however, there is no expectation to see the body of the voice in the first place; and the listener listens to the "voice as a voice", knowing that it has a body, and that one is not to see it. Such a position, makes available a plane in which there is a flexibility and an affirmation of a play to move between positions

of the supernatural, mysterious, powerful acousmêtre and the everyday, ordinary and vulnerable appearance of the voice. This dual position mesh in various levels within my RC practice creating a potentiality of complex web of meanings.

Throughout my RC practice, I treated the sound recordings with as little manipulation as possible in order to keep the acousmatic agents recognizable. My aim in doing so, is not just to simply present the other as a form of documentation, but to be able to convey the complexity of their sonic expression without destructing, simplifying or obscuring the life of sound within the recording. Therefore, the audio recording of the acousmatic agents undergoes only minute amounts of change in my practice. Forms of change, applied to the sound recordings range from: 1) applying minute amounts of EQ, 2) adding minute amounts of silence in between gestures and phrase structures, 3) noise removal, 4) minute adjustment of dynamics. The minute adjustments on EQ, dynamics and elongating silences, are done when the recording becomes a communal space i.e. holds within it both the acousmatic agent and my responses. Other than these, in working with long sound recordings, as in the case of working with swallows, I do a: 5) foreshortening of the recording I made (explained in its respective section, Section 4.3.2).

Both of my com-posers are different species (human and swallow), therefore they sound from within very different contexts for very different reasons, and produce very different sound types and sonic behaviors. Therefore, in my listening, performing, and meaning-making mechanisms are contingent on these aspects; and as I look into coherent ways to intra-act with both, I ended up working through a not-yet known field, through an experimental field of practice. Consequently, during my practice, some approaches worked, some others didn't, however a comparative field of questioning has opened up, which generated questions, paving way for new paths.

And so, throughout the process, I try and keep my practice flexible enough to reinvent techniques, perspectives, vocabularies, tools and material, so that the self responds in new and fresh ways, cultivating a response-able practice. However, as to maintain the coherence within the research, I check-in through various reference points throughout my practice. I use these reference points in both of the com-positions, so that they could be repeatable and coherent, therefore comparable. The main elements providing coherent points for my practice are, 1) the contextual plane 2) the self that interacts with both agents, 3) use of same tools for analysis and performance; which are TSUs

and similarity/difference relational responses, 4) Responding to the acousmatic agents with the same series of material agents (piano and things).

Now that we have an overview of context, theories, tools, and postures of the RC practice, let us dive into my application of these within the socio-sonic domain. Within the next two sections, Section 4.2 and Section 4.3, my com-posers are introduced, and two different com-position processes exemplifying the RC process are unpacked. The various positions and relations interlaced with agents are explained and discussed in detail along with the musical examples; where they illustrate explicitly as they can, how the technical, contextual, theoretical and empirical background works in tandem with the specifity of my application of RC practice.

In the body of the text, only hyperlinks are provided; the complete URLs to visuals, audio examples and videos are found in Appendix C. In order to make it easier for the reader to navigate within the information flow, each visual, sound example, and video is named with the number of the Figure it is presented with. For example, if the Figure illustrating the sound example is called Figure 4.2, the sound example is accordingly named Sound example 4.2.

4.2 Quest(ion)s: Com-posing with Sumru Ağıryürüyen

In working with voice, the first person that immediately came to my mind was Sumru Ağıryürüyen. Sumru is a vocalist, and a mandolinist whose practice encompasses a variety of styles; ranging from folk to popular music, from free improvisation to contemporary, experimental and avant-garde. She is one of the pioneer singers in the free improvisation scene in Turkey. She is a member of So Duo, Konjo, Sert Sessizler and was a member of the group Mozaik, and appeared on albums of Yeni Türkü, Ezginin Günlüğü, Sezen Aksu, among many others, by singing and/or playing the mandolin. She teaches ensemble workshops and classes based on practices of Deep Listening created by Pauline Oliveros (1989).

Working with Sumru was something I always wished for, so I asked her if she would like to com-pose with me, and she has kindly accepted my invitation. I asked her to sing free improvisations within a sound-based approach, in what could be called a contemporary style of improvisation. I provided her with the Temporal Semiotic Units, and stated that they are to be functioning as companions rather than scriptures for her

improvisations, and that she can freely interpret them (See Appendix B for the informational text I sent her, and Appendix A for the TSU list). I asked that she send me recordings of her improvisation(s), as I worked with fixed recordings due to the Covid 19 pandemic. She immediately sent me recordings of her improvisations, where she inhales and exhales five short improvisations. Within the scope of this dissertation I work with one of them, the one that spoke to me most: number three.

Sumru is a contemporary improvisor, whose sound palette is broad and her sound world is open to a wide variety of types of sounds, behaviors and structures. After she sent me her recordings, she briefly stated that in her singing, intentionally there were some "imperfections"; pitches that fell in non-tempered tuning, some had cracked, got distorted through various techniques she applied etc. making sure that we are on the same page in terms of musical aesthetic approach. These idiosyncrasies within her style and technique —which from a conventional perspective might be considered as imperfections— are in fact, the charm of her sonic-world. Already levels of storying were triggered from our initial encounter; her refined, yet seemingly imperfect approach, along with other idiosyncratic qualities in her voice brought forward the real, mundane everyday humanness situated within the body. Through her style, the listener is reminded of the mortality, physicality, livelihood and bodily manifestation of the voice by the breaths, and utterings made between words. Her stylistic approach, that invites the impermanent human, brings forth everyday sincerity, pumps life to the sonic field, maintaining the complexity of her unique and refined sounds. This notion of the seemingly imperfect, quickly became the main drive for the aesthetic value of the sound world of the piece for me. I wanted to foreground it, and to be in response with it. This in return, opened up a sensitivity to the person and her sonic world, awakening various forms of inspirations for my practice.

Along with her improvisations, I also asked her to speak some words that were somewhat related to, and inspired by her improvisation in the sound recording. At the end of the recording, she has uttered "expressions of the mystic quest". See Figure 4.1 below; listen to Sound example 4.1 (YouTube link).

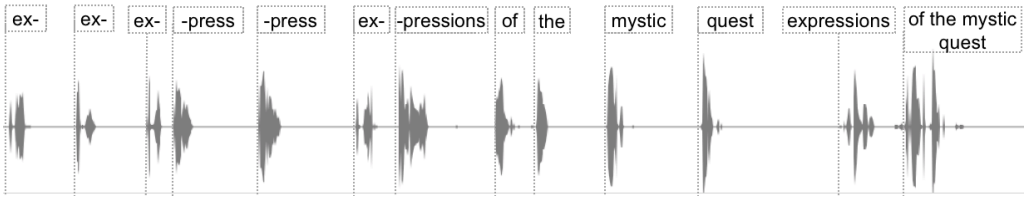

Figure 4.1 : Sumru Ağıryürüyen, Accompanying Text of the Improvisation.

As illustrated in Figure 4.1 given above, the way she utters the sentence, revealing it word by word, piece by piece, expresses a playful and mysterious process, slowly unveiling itself as it progresses. Her choice of words, and the way she utters them, effects and colors my listening and interpretation. I named the piece after both her "quest", and the set of piling questions in my head, calling it "Quest(ion)s". There it was, the first piece I was about to begin my RC practice; it was indeed brewing a mystic quest for me.

4.2.1 Quest(ion)s autoethnographic notes: Aural analysis sketch

The first thing I did when I got Sumru's recording was to sit down with paper, pencil and to jot down my initial impressions. Here the aim is to capture the immediate ways I connect with Sumru's sonic world, and to trace various affects her sounds have on me. I listen to her recording a few times, drawing figures and taking notes of what I hear without any other external interruptions. After I have jotted down initial drawings and notes, then I listen to the piece again with the companionship of TSUs, paying special attention to behaviors of performative agency and movement trajectories. Later, I listen into more details and begin transcribing what I hear in a bit more detailed way. The transcription process is not to create an all-encompassing representation of what is heard, but rather to explore what a closer listening/knowing, reveals in terms of the relational traces and affects.

As each listening carry potential to awaken new things to hear and to think about, the attribution of definitions and functions of sound events are subject to revisions with each listening. Such nature of listening, brings to my practice an awareness that listening is always an incomplete process, that it is always changing, carrying potential to erase, generate and reveal new information as it repeats itself. Therefore, I get to trace early interpretations and affects Sumru had on me throughout the process, and observe what getting acquainted with her sounds do to my listening, interpretation and behavior, allowing me to track my habitual ways of thinking and doing, as they

accumulate on my sketch. As the RC practice is not interested in expressing a static, fixed and inert analysis, which linearly informs what comes later in a top-down manner, the early interpretations go under change throughout the practice, together with new listenings and other information gathered by the other stages of the practice. The following Figure 4.2 shows the accumulated version of my multiple listenings. To see finer details of this sketch, view the higher-resolution image Analysis sketch 4.2 (Padlet image).

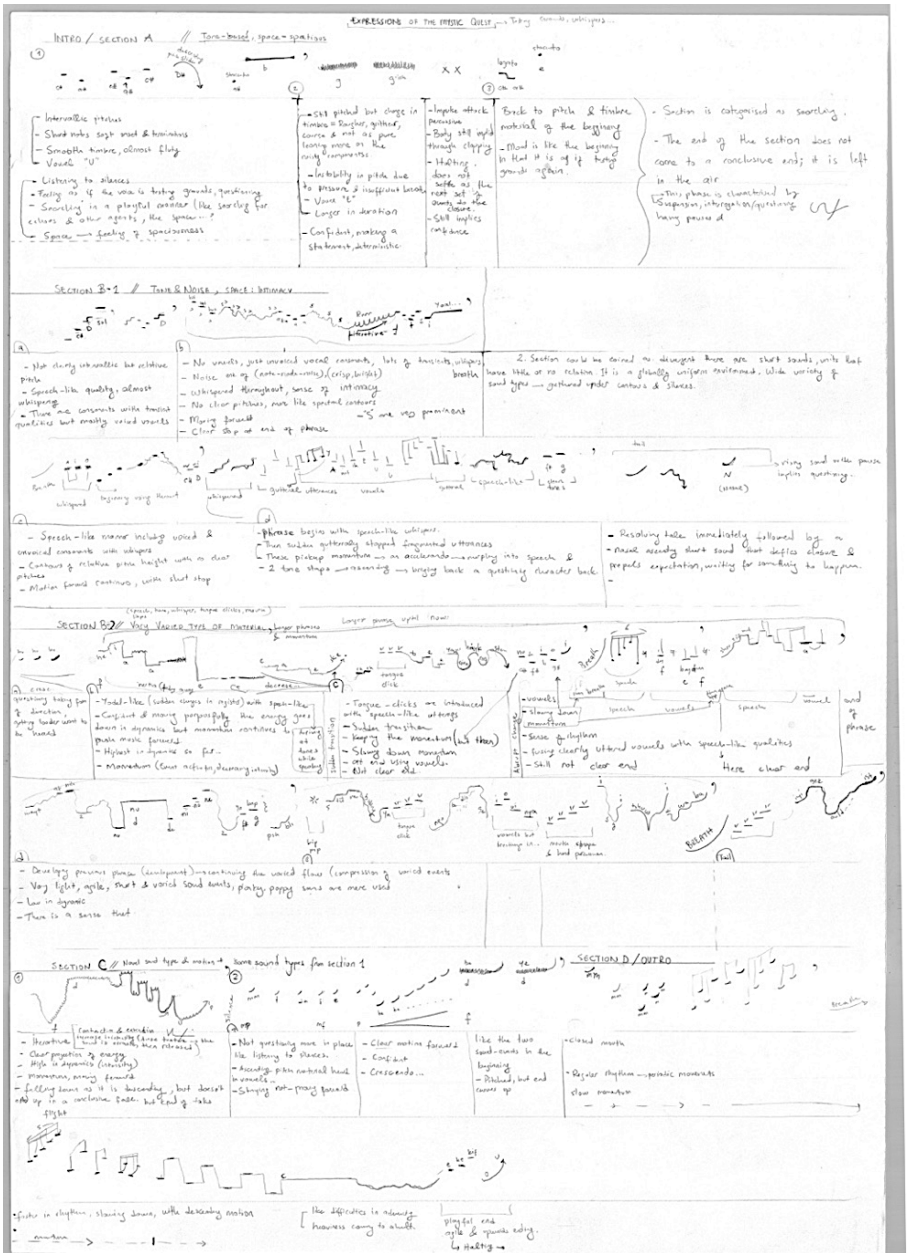

Figure 4.2 : Sumru Ağıryürüyen's improvisation, Sketch of Aural Analysis.

The sketch above has horizontal grids that are to be read in pairs. On the top grid, there is a graphic transcription of what is heard, drawn by various shapes. And below the

graphics, there are various descriptions of them, describing sound types, movements, behaviors, TSUs, some structural divisions and marks, along with some autoethnographic notes. As a next step, I move into the tactile, and movement-based performance stage, performed together with material agents.

4.2.2 Quest(ion)s autoethnographic notes: Performance notes

My initial idea was to record the tactile and movement-based performances in real-time and thorough-played sessions. This didn't pan out the way I envisioned it. When I began playing and recording the responses with my instrument, I came across two aspects that changed my methodology.

Due to the confinement caused by the outbreak of Corona-19 virus, the recordings were done in my home environment which doesn't have studio conditions to make clean and clear recordings. Therefore, some sound signals[32] caused by traffic sounds, animal sounds, construction sounds, neighbors' sounds, call for prayer etc. leaked into the sound recordings. Along with these, the noise floor caused by hum of traffic inevitably leaked into my recordings, creating an overall atmosphere and ambience.

In the beginning, I thought I could welcome the sound signals as agents in my practice. However, the call of prayer played a major role in changing my mind. When the call for prayer occurs, it is so imbued with cultural and symbolic meanings, and a heavy baggage, that I did not wish to carry it. Instead of deciding which sounds from the environment could exist and which couldn't in the recording, where I exclude some and not others, seemed unappealing. On top of this, I thought, if I begin inviting these agents into my practice where the network of relations that are already quite crowded, it might imbue the practice with overabundance of information, making it difficult for me to trace the relational web and navigate within it. Therefore, I decided not to include any sound signals from the soundscape[33], and keep the recordings as a habitat that only carries the sounds of the acousmatic agent, and the responses of self/instrument.

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[32] In the field of soundscape studies, "sound signals" are sounds that are in the foreground, in relation to the background ambient noise level of the soundscape. They are figures that are meant to be listened to, signaling various forms of messages in the environment.

[33] Although, I did not include sound signals in the recordings, I found that I was inevitably affected by them; sounds in the environment had affective traces that impacted the way I listened and performed. For example, at one point, a bird chirping outside my window, impacted the way I listened to and responded to Sumru in my rehearsals.

Not including sound signals within my sonic surroundings, limited my freedom to record whenever I wanted, and defined the time frames I can be recording. And so, the idea of "responding in one go" was eliminated. I began working by re-recording segments, units and sections, which resulted in a rehearsal-based engagement process. As I listened and responded within this particular process, it led me to be in a more contemplative state, constantly considering my previous responses. Consequently, along the process, I began changing my previous responses, by generating other possible responses, which created a continuous dialog between past/present responses through listening, memory and experimentation.

In the beginning of my practice, I started working linearly with Sumru's recording, I played section by section, first recording the similarity and then the difference response. However, by the time I got to section B2, I started working non-linearly. For example, as I was rehearsing and recording for one section, I found myself generating thoughts about sounds and behaviors for other sections, that came previously or later in the piece, so I started moving back and forth, responding in a non-linear manner. In the beginning of this non-linear back and forth movement, I was performing chunks of units and sections. However, as the practice progressed, I began to include moments where I worked with more granular forms of time, like recording a single sample of sound for a particular portion of the piece.

Working through this process allowed me to constantly switch and form dialogs between: 1) the immediacy of expression in present time through improvisation, and 2) a contemplative compositional state. Both processes offered by the contemplative and the immediacy of muscle memory and movement, played an important role in my practice and especially in combining analytical and intuitive modes of thinking and responding. Through such process, I found myself listening and figuring, adapting and adopting i.e. generating and learning various forms for staying response-able.

While there is more I could potentially unpack from my autoethnographic notes, I believe that providing the analysis and the outputs would lay down many of the issues in a context-relevant manner. Therefore, let us move into the section where the analyses and responses of Quest(ion)s are explained and demonstrated together with the sonic results.

4.2.3 Quest(ion)s analysis and responses

Sumru's improvisation is mostly in a developmental and progressive spirit throughout the piece. There is a constant motion forward, imbued with intentionality; however, the precise directions of events are mostly unclear, meaning that usually one could not anticipate the end points of these movements. Because of the level of directionality, various expectations are created; and there is a constant play between these expectations and their unpredictable destinations. I couldn't help but tie this sonic behavior with the words Sumru uttered at the end of the piece; "expressions of the mystic quest"; highlighting the notion of ambiguity, where the orientation and intention are apparent, but the expressions possess an unknown future.

In the aural analysis phase, I trace both intrinsic and extrinsic[34] threads of sounds. The pitch and timbre content are highly versatile as her sounds move on and/or between continuums of tone/noise, speech-like utterances/song. I describe sound types through intrinsic descriptive terminology, along with some extrinsic notes that arise from my interpretations, generating symbolic and contextual counterpoints. On another note, when the functions of the musical events do not particularly fit into the nineteen descriptions of TSUs, I create additional vocabulary, relying on my interpretations of sounds, movements and behaviors.

Sumru's improvisation is 2:38 in duration. During my response process, I felt the need to have a bit more temporal space between certain instances throughout the piece. Consequently, in order to open up some space for me to respond, I ended up inserting minute amounts added silence to the silences that already occur between some sound events. As it is important for the RC practice to let the other be "as is", it was crucial that these silences did not function changing the general flow of the piece, nor the meanings of the sound events and therefore were carefully implemented (according to

[34] The term extrinsic, designates a musical referencing where meanings of sounds are connected outwards into the external world; whereas intrinsic, points out to internally referenced musical material components and structure. Many musicians and theorists use various terminology to express introverted and extroverted meaning of musical sound: Exosemantic/endosemantic (Werner Meyer Eppler, in 1959 in explaining his information theory, later adopted to musicology by Charles Seeger (1960) and William Bright (1963)); introversive/extroversive (Kofi Agawu); congeneric/extrageneric (Wilson Cocker); intramusical/extramusical (Raymond Monelle). In this dissertation, I follow Denis Smalley's (1997) terminology: intrinsic/extrinsic.

my interpretations of them). The edited version of the piece became 2:46; extending the original recording for eight more seconds. See Figure 4.3 given below:

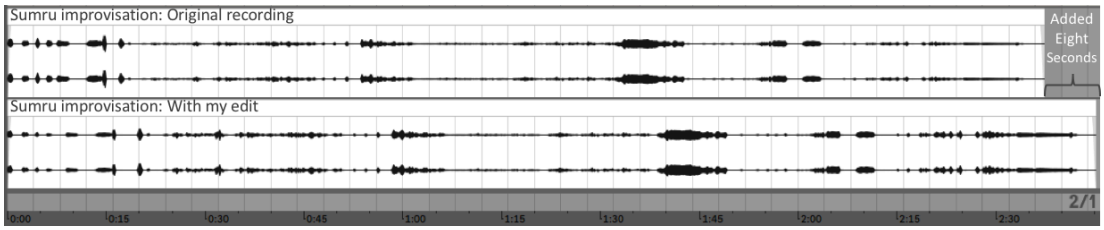

Figure 4.3 : Edited version of Sumru's Recording.

I decided on the duration and place of these inserted silences, through both the difference and similarity response rehearsals, letting them co-decide. The reason for this was because, I wanted to keep the responses on the same time frame, as I thought, later I might be wanting to read and compare them through one another within this shared time frame (Which in the end, I didn't end up doing so). In the results, the difference response became longer as I added an introduction section to it; adding an extra five seconds to the piece making it 2:51 in total (reason explained and demonstrated in section, Unit A-1).

Within Sumru's improvisation, the sectional articulations are not always clearly separated by definitive beginnings and conclusive endings, however the overall structure of the piece could be grouped under four main sections informed by the sound type and motion/energy trajectories. Section A (a short intro), Section B (developmental section, that uses a wide variety of sound types and gestures that are in perpetual variation), Section C (new material followed by conjuring a bit of the sound types and gestures of Section A), and finally, Section D (an outro). For the sake of clarity and articulation, I divide each section further into smaller segments I call units. A general analysis of sectional divisions and TSUs, are shown in Figure 4.4 given below; listen and view Sound example 4.4.

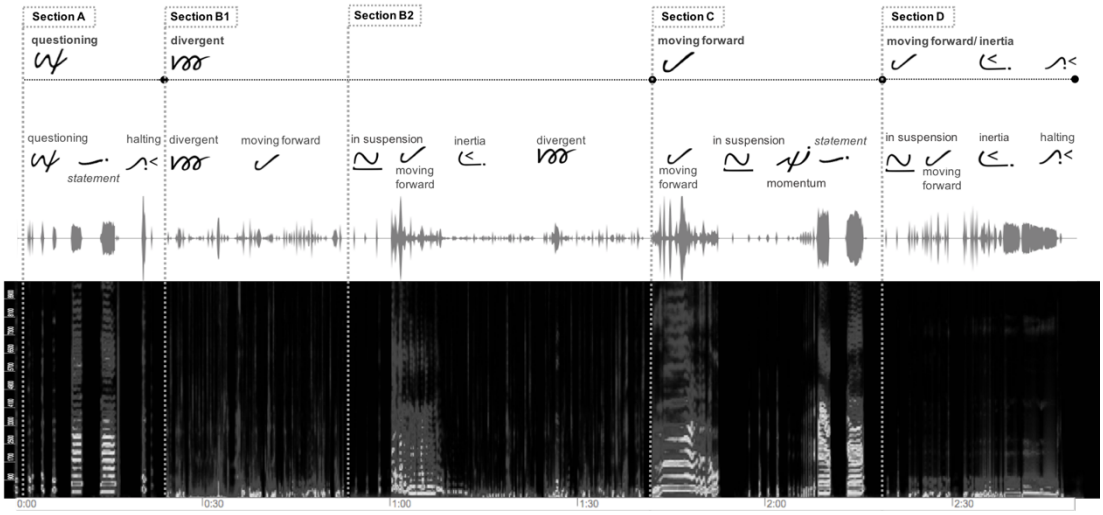

Figure 4.4 : Sumru Ağıryürüyen's improvisation; General Formal Analysis.

As could be observed in the figure above, the word statement is indicated in italic writing. The italic writing indicates an energy trajectory in which there is no corresponding TSU, pointing out to something I created and suggested.

In the following sections, the piece is unpacked within sub-sections called units. Each unit is described within three instalments: analysis of the voice, analysis of similarity response and the analysis of difference response. These are coupled with detailed visual illustrations of comparative analysis, and video analysis files (with sound) demonstrating a more general and overall analysis, that allows the viewer/listener to trace and follow the explanations.

4.2.3.1 Quest(ion)s: Section A

Section A is a short introduction section, it is constructed of mainly tone-based material, with the exception of two claps that occur towards the end of the section. It has a generous use of silences that create negative space; the silences are not static, they seem pregnant and create expectations.

Note-based, intervallic pitches are not fixed, grid-based, well-tempered pitches. The sound events have near-monolithic timbral qualities, consisting mostly of smooth timbres, that are short notes, with soft onset and terminations, and are sung with the vowel's "u", "e" and "a". These timbral variations could be further observed in the spectrogram below (in Figure 4.5), as timbre is displayed as the complex relation of frequency (on vertical axis), time (on the horizontal axis) and as amplitudes (as darker lines).

Listening to the use of pregnant silences, coupled along with short playful sounds, I gather a general sense of questioning, a testing of grounds, a calling out for something. In this unit, there is a feeling of intention expressed by little movement that is inserted with silences and stops. Consequently, I coin the overall energy/motion quality of Section A, "suspending-questioning" (TSU).

Unpacking the section into smaller units, I indicate four sub-energy/motion trajectories within this section. First is the "suspending/questioning", the second does not have a TSU equivalent and holds almost an independent status, so I used additional vocabulary, calling it "statement" (reason explained in respective unit: A-2), thirdly a "halting", and fourth a continuation of "suspending/questioning".

The "statement" comes to a halt immediately with two claps. Only to be reanimated by three short notes that continue the questioning and close the section with a non-resolution. Overall, in the unit there is an underlying quality of sonic events that are acoustically sparse; which allow one to listen more intently, more alertly and attentively. Depending on the function and sound types of events, I divided Section A into three units as indicated within the following Figure 4.5 below; listen to Sound example 4.5.

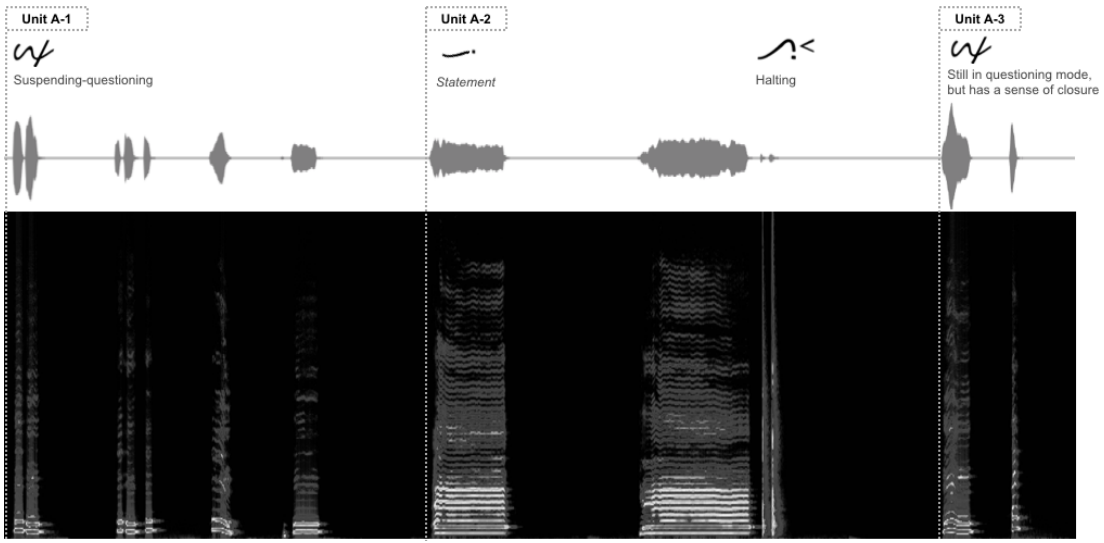

Figure 4.5 : Sumru Ağıryürüyen's improvisation; Section-A Analysis.

The following sections unpacks the three units within the Section A: It indicates sound types, along with some extrinsic notes and energy/motion trajectories within diagrams. Next, is a general introduction to similarity and difference responses, which is then followed by detailed explanations of each unit.

Introduction to similarity response: Section A

In the similarity response of Section A, the extrinsic readings mainly follow the initial readings that were expressed in the aural analysis. I aim at highlighting the element of spaciousness and the wonder of the voice. The response mimics, imitates and supports energy/motion trajectories as well as the sound types of the voice. In this section, the similarity response supports the TSUs that were used to express the aural analysis of the voice; it does not change nor add other motion/trajectories.

The sound-types are note-based, intervallic pitches, and they do not line-up exactly with the pitch detail of the voice; it supports and contributes to inharmonicity. The response begins with fluty tones and gets grittier in timbre loosely following and imitating the timbral unfolding of the voice. In my response, the changes in timbre in are not done according to a timbral data analysis, I rely on aural decisions, based on tracing an overall morphology of sound, instrument and gesture affordances, as well as sensorial information. In the similarity response, the types of response behaviors could be categorized mainly as, doubling, call-response, extension and juxtaposition within section A.

Introduction to differential response: Section A

The difference response uses a variety of sound types that contrast the timbral world of the voice in Section A. The response includes both note and sound-based approaches; sounds range from clear tone material, to high level of inharmonicity, to a variety of noises.

The difference layer moves in contrast also with the energy/motion trajectory and behavior of the voice. This response breaks the notion of pregnant silences and the questioning happening in the voice; and is characterized by forms of clear directionalities and arrivals. The difference response includes imitating the sound events and gestures of the voice. However, instead of direct imitation, rather, it follows and responds to the contours of the stops and silences that are in the voice. In the difference response, these contours are not articulated as full-stops; but move forward to pave way to new events, always with a sense of intention and direction. This provides a contrast to the questioning and “spacious” character of the voice. In doing this, the difference response generates a high level of causal relations that carry many similarities with the voice. I found that inevitably forms of imitation and mimicking

happen during the responses, forming continuations, juxtapositions, as well as abrupt cuts and ruptures with the voice layer.

The TSUs that were allotted to the voice in the aural analysis, are layered with new TSUs introduced by the difference response; at times it supports the TSUs of the voice and at others forms contrasting counterpoints to them. Next, the three units within Section A are evaluated individually.

The following structure of the presentation of analyses will be repeated throughout the chapter. A table will be given below its respective unit briefly pointing out to sound types, extrinsic notes and TSUs gleaned through the analysis of Sumru's song. This table is followed by explanations of the similarity and difference responses along with their respective visual graphic analysis, and a video analysis link.

Unit A-1

Below find the table that provides the sound types along with some extrinsic notes and TSUs of Sumru's song, sung within unit A-1.

Table 4.1 : Quest(ion)s, Unit A-1.

SUMRU'S VOICE	
Sound Types	**Energy/Motion Trajectories & Extrinsic Notes**
Note-based, intervallic pitches	Questioning, searching, a sense of wonder
Short notes with soft onset and terminations	Generous use of silence, spaciousness
Smooth timbre, fluty	A sense of playfulness
Vowel "U"	TSU: Suspending-questioning

Similarity Response Unit A-1: When I began playing, I immediately begin an inquiry for a gesture, and tactile/sensorial feeling that could translate to the smoothness of timbre and a sense of wonder. I find myself quickly reaching for, and playing by rubbing the wooden sticks placed in between strings. The tactile feel is smooth on fingers, it is produced with much ease, without any force, and the upward motion also carries a feeling of leaving things in the air (a translation of non-arrival, and of suspension, and questioning). These objects create fluty, pitch-based tones which are good material for mimicking the pitch and timbre material of the voice.

However, because the pitch structure within the voice is not stable, fixed and do not overlap with the well-tempered system, I played around with the quality of non-fixedness, of non-aligning spectral centers, using microtonal, and inharmonic pitches,

that sometimes function as extensions and at others, clash, and/or transform existing pitches presented within the voice.

During the rehearsal I focused on entraining and synchronizing with the voice in order to maintain the sense of questioning, together with the use of spaciousness and silences; building wonder and expectation. I chose to be silent together with the silences in the voice, as later, there is not much of it.

The response starts at the same time with the voice, and its events are synchronized with it; it doubles the tones, and layers them with similar timbral qualities. The response also supports the sound and energy/motion trajectories in the voice. On the gestural plane, the responses continue behaving in a highly imitative manner that vary from acting as extensions, doubling the voice, and following a call-response model. See unit A-1 similarity response, in Figure 4.6 and listen Sound example 4.6.

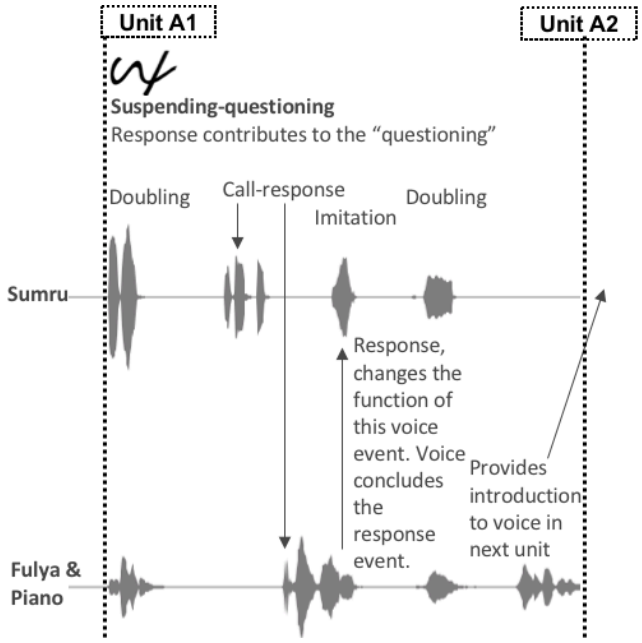

Figure 4.6 : Section A, Unit A-1, Similarity Response.

Difference Response Unit A-1: The difference response has a lot of motion, and kinetic energy. The rehearsals were driven with the intention of filling in the silences of the voice with contrasting sound types and motion. However, in doing so, the challenge was to be attentive and careful as to not cover and mask the voice, so much so that it leads to a loss of agency of the voice.

And in the process of finding ways to accentuate the presence of the voice, I found that in my rehearsals, there was a tendency to play an introduction to the voice. The

introduction leads to the moment the voice starts singing, and highlights its presence. Therefore, the difference response begins with high level of motion and a variety of sound types, but once the voice enters, it all unravels, and leaves the "stage" to the voice and keeps receding while the first two sound events of the voice happen. Here we observe a "contraction-extension" TSU.

Along with the third sound event of the voice, the response quickly picks-up the energy with the motion trajectory "moving forward", and joins-in with the voice in event three and four. The response is moving in contrast, and introduces another layer of TSU: "moving forward". With the fourth event of the voice, the motion forward slowly comes to a "halt" (TSU). Just as it is receding, another event occurs triggering Unit A-2, moving the unit slightly earlier temporally. See unit A-1 difference response, in Figure 4.7 and listen Sound example 4.7.

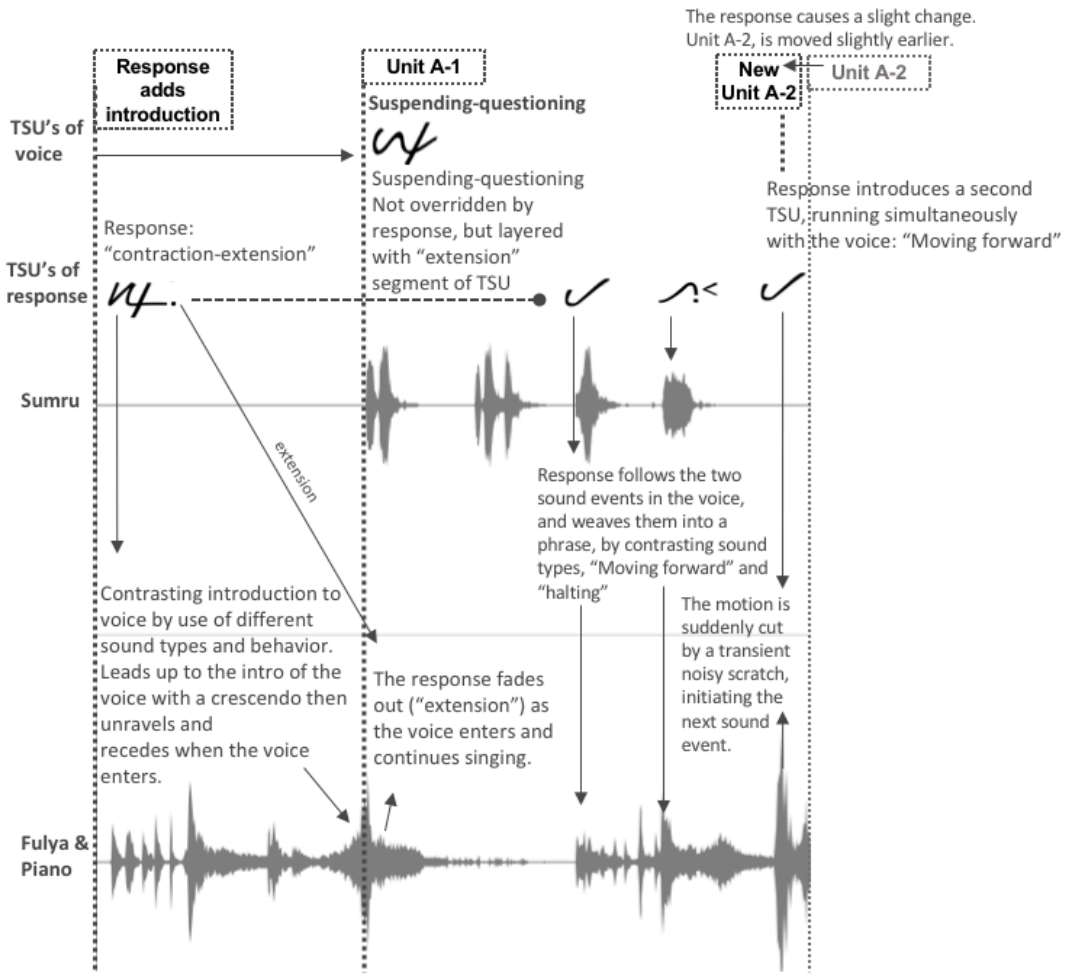

Figure 4.7 : Section A, Unit A-1, Difference Response.

Unit A-2

Table 4.2 : Quest(ion)s, Unit A-2.

SUMRU'S VOICE	
Sound Types	**Energy/Motion Trajectories & Extrinsic Notes**
1. Still within pitch-based sound domain, but the timbre is different: rougher grittier and coarser (not as fluty as the introduction, leans more on the noisy spectrum of timbre).	**1.** Not questioning any more, there is a feeling of confidence, of making a statement, and a deterministic attitude. Such sound event does not have an equivalent TSU. The event is definitive and holds almost an independent status; therefore, I use additional vocabulary, and coin the two sound events as "Statement" (graphic symbol presented below).
There is instability in pitch, in the second sound event; which might be due to insufficient breath.	The instability of pitch gives the feeling of applied force; and somewhat being "stretched".
Longer durations	---
Vowel "E"	---
2. There are two claps that are contrasting with the sound of the voice, sounding percussive impulse-attack type sounds.	**2.** Claps create a feeling of cutting off, a form of "halting" (TSU), still with confidence. However, the claps do not bring the section into a full closure; unit brings a non-conclusive end to the section.
---	The claps affirm and foreground the body.

The two sound events in A-2 do not have a TSU equivalent. The events are definitive enough to stand out as an energy/motion expression, and hold an independent status. In this sound unit, there is a feeling of confidence, and a deterministic attitude, as of making a statement about something. Therefore, I use additional vocabulary, and coin the sound unit as "Statement". I refer to it with italic writing in the analysis images; and to represent the event I created a symbol, using an imitative approach to TSU symbols created by Julie Rousset for visual coherency. The "statement" energy/motion trajectory continues to be used throughout the dissertation. See Figure 4.8 given below.

Figure 4.8 : Symbol for Additionally Created Unit: Statement.

Similarity Response Unit A-2: The two sound events of the voice (coined as statement) come to a halt with two claps. The first tone is accompanied and the second is doubled with fluty tones. In this unit, together with fluty tones, I played other noise-based sounds.

I applied tactile pressure on strings with various objects, loosely imitating the grittier timbre expressed in voice. The application of pressure to strings with objects resulted in a richer timbre, and noise-based sound components. In my performances, playing these tension-induced sounds resulted in crescendos; which from an extrinsic perspective, could be interpreted as supporting the notion of confidence and statement in the voice.

The silences between the two notes are kept as they are, however the decaying resonances of the responses leak gently into silences. The second event of the response is "halted" immediately with the second clap of Sumru, expressing a clear source-cause relation. See unit A-2 similarity response, in Figure 4.9 and listen Sound example 4.9.

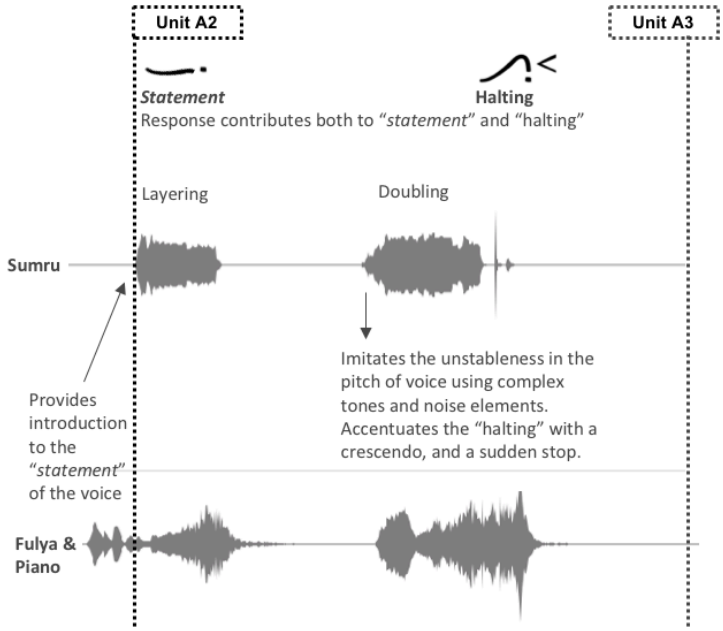

Figure 4.9 : Section A, Unit A-2, Similarity Response.

Difference Response Unit A-2: The difference response initiates the unit right before the "statement" of the voice. The response incorporates a wide variety of sound types imbued with motion, contrasting the monolithic timbre and two tones sung by the voice. It continues with the TSU "moving forward", yet, with much more drive, in

energy. The response moves with much motion, directionality and intention especially supported with the bass line.

The separation of layers, —due to the sound and behavioral contrast— are clear; which allows the voice to maintain the notion of calling out and making a statement. The kinetic energy continues until the claps of Sumru. Together with the second clap, the response comes to a "halt" together with the voice; yet another layer of sound comes under this halting (elision), in the response. And this sound event causes Unit A-3 to be initiated a few seconds earlier. See unit A-2 difference response, in Figure 4.10 and listen Sound example 4.10.

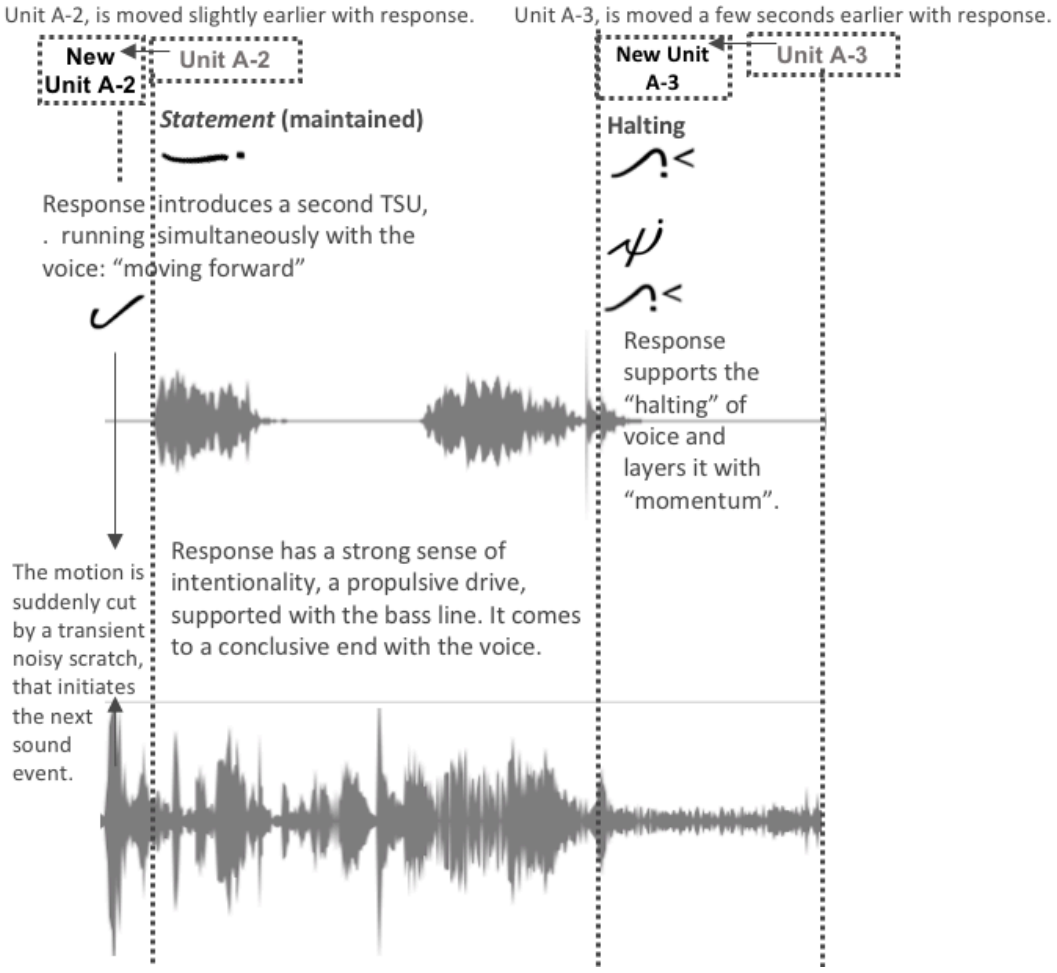

Figure 4.10 : Section A, Unit A-2, Difference Response.

Unit A-3

Table 4.3 : Quest(ion)s, Unit A-3.

SUMRU'S VOICE	
Sound Types	**Energy/Motion Trajectories & Extrinsic Notes**
Back to pitch and timbre material of the beginning, singing with vowels.	The sense of "suspending, questioning" continues.
Short notes with soft onset and terminations. Smooth timbre, almost fluty.	The section begins and ends with a searching posture, the end does not have a conclusive end, left in the air; the anticipative mood continuous.
Vowels "O" and "A"	---

Similarity Response Unit A-3: The similarity response responds to the first sound event of the voice by harmonizing it, and then responds through call-response. The second sound event of the voice, triggers a fast-iterative sound (with a rapid series of onsets) on the piano, leads and subtly transitions into the next section (Section B). Such gesture is to highlight the non-conclusive ending of the section of the voice, providing a leakage into the next section. See unit A-3 similarity response in Figure 4.11 and listen Sound example 4.11.

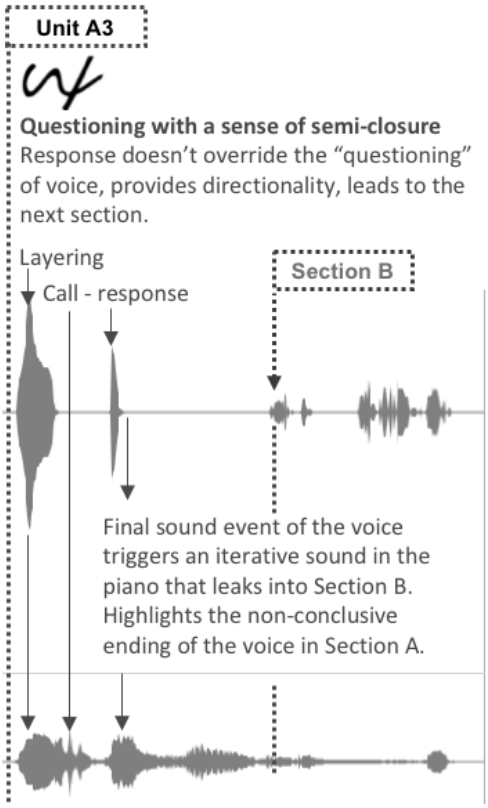

Figure 4.11 : Section A, Unit A-3, Similarity Response.

Difference Response Unit A-3: The difference response of this unit begins with the clapping of Sumru, it simultaneously causes an end to the previous unit and a beginning of the next (elision). In the response there is a short scratch-sound that causes "halting" of previous sound event, and an iterative layer emerges from under this sound. This iterative layer slowly accumulates, accelerates and agglomerates imbued with intentionality, creating a "momentum" TSU, and transitioning into the next section; resolves within the next section. The difference response of Unit A-3 holds contrasting sound types as well as energy/motion trajectory to the voice. See unit A-3 difference response, in Figure 4.12 and listen Sound example 4.12.

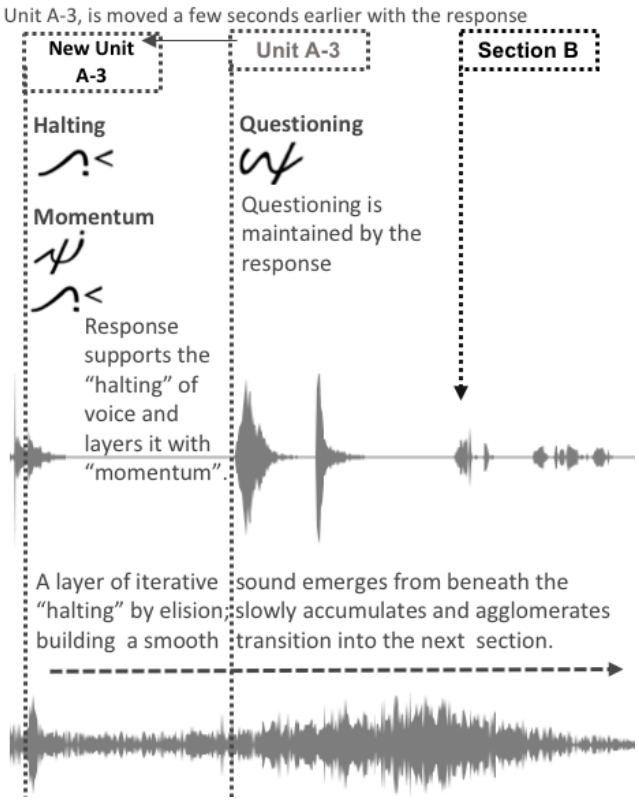

Figure 4.12 : Section A, Unit A-3, Difference Response.

In the following two Figures 4.13 and 4.14 the graphical analysis of similarity and difference responses of Section A are provided. Listen to the corresponding Sound example 4.13 and Sound example 4.14.

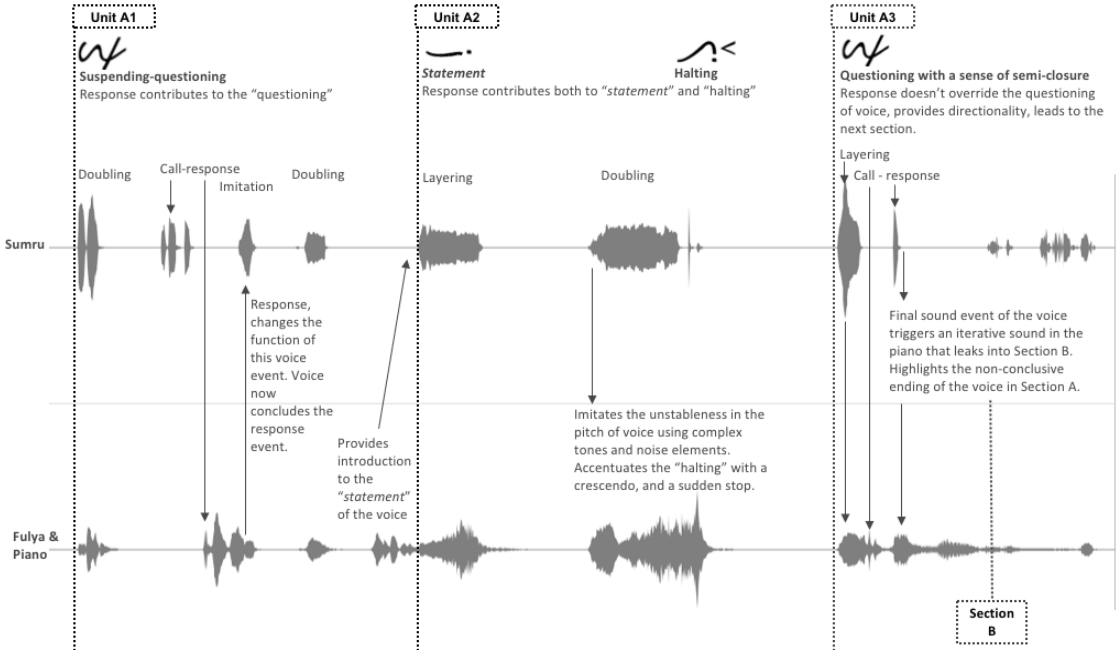

Figure 4.13 : Quest(ion)s: Section A, Similarity Response.

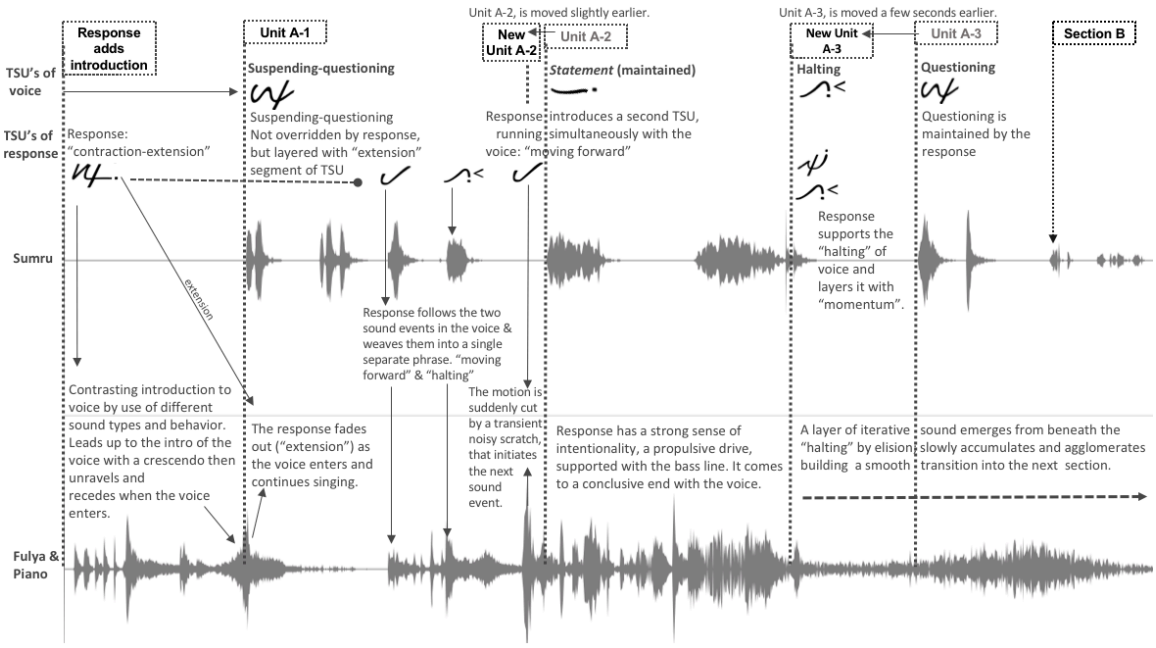

Figure 4.14 : Quest(ion)s: Section A, Difference Response.

As mentioned earlier, the similarity and difference responses are not absolute and clear-cut separations, and at times, we find that inevitably either the sound-types, the behaviors, or both, leak into one another, they could have two meanings at once or do short visits into each other's domains. The various examples of this are already demonstrated in the previous section and more will be pointed out in the following sections.

4.2.3.2 Quest(ion)s: Section B-1 and B-2

In section B, Sumru sings mostly short sounds with a wide variety of sound types mainly on the noise end of tone-noise continuum. Section B contrasts Section A by increased temporal activity, sound types and energy/motion trajectories. The sounds are woven with one another through various gestures, contours and brief silences. As the section holds within it a wide variety of sound and movement types, it could be taken in hand as a globally uniform section. As whenever there is too much information, and it continues long enough, it becomes something of itself; and this is the case for this section. Consequently, this section is categorized under the "Divergent" TSU.

Mentioned earlier as a general feature of the piece, the flow and intentionality of events where the precise destination is somewhat unclear, is clearly apparent within this section. There is a constant building of expectations where the arrival points could not be anticipated; the dynamic of the movement does not follow a straight, linear-line.

With the introduction of speech-like qualities and whispers, this section contrasts the previous section. In this section, there is somewhat a close-up of the voice, sung in an intimate space throughout the section.

The temporal pace of directionality has an ebb and flow of inner dynamics, sometimes decelerating, sometimes moving faster. We hear a constant changing of pace and length of the events. Sumru keeps on giving birth to new types of sounds until the end of the section, stitching them together in smooth or abrupt ways. These various sound types create sound units that have various directionalities and behaviors. At times they are causal, smoothly or abruptly moving into the next sound event, which could be an expansion, continuation or something new. These sound events create a drive both on spectromorphological as well as the motion level. Depending on the function and sound types of events, I divide Section B1 into five units as indicated within the following Figure 4.15, and listen Sound example 4.15:

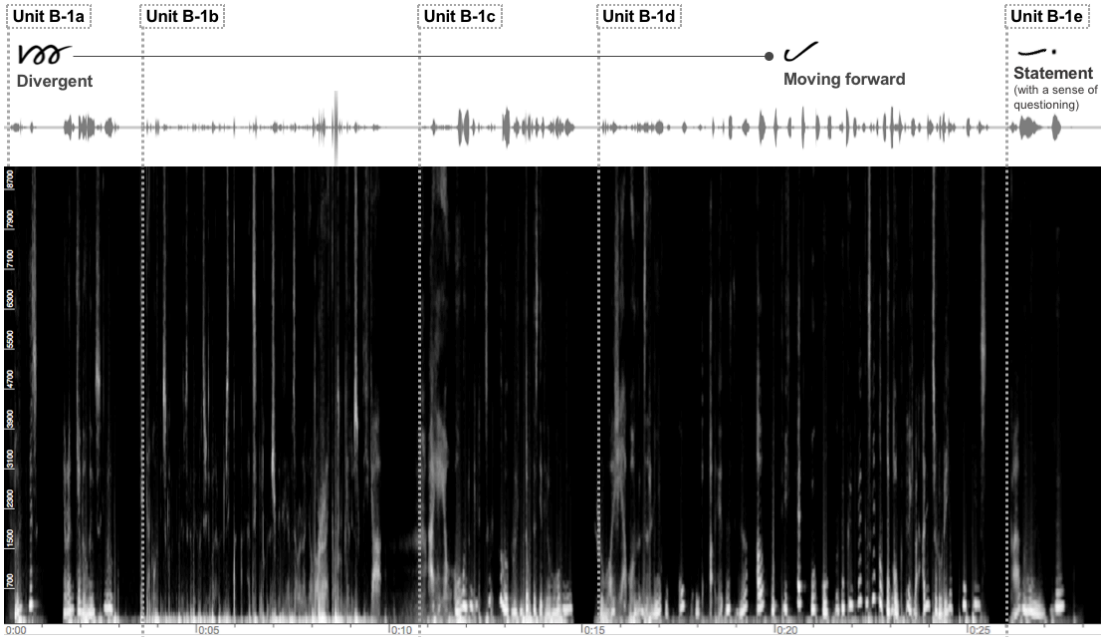

Figure 4.15 : Sumru Ağıryürüyen's improvisation; Section-B1 Analysis.

Unit B-1a

Table 4.4 : Quest(ion)s, Unit B-1a.

SUMRU'S VOICE	
Sound Types	**Energy/Motion Trajectories & Extrinsic Notes**
Unit consists of short sounds.	There are two gestures, just like an antecedent and consequent.
The speech-like quality, includes both consonants (which have strong transient attacks) and voiced vowels.	The speech-like quality, sung through almost a whispered manner, creates an intimate setting in contrast with the spacious section A.
Sound types include both pitch and noise material. Most of the pitches are not clearly pronounced, mainly perceived as relative relations rather than intervallic ones.	TSU: Divergent.

Similarity Response: The similarity response follows the consonant articulations of utterances and relative pitch relations of the vowels, responding through imitation, by intervallic pitches played by muted keys. In the voice, as the pace of sound events increase and a form of articulated speech-like sounds were uttered, the immediate body response was to play keys, in an articulate and agile way. However, in pursuit of not overpowering the subtlety of pitch content sung by voice, keys were played with muted strings, this way the voice was not overruled however somewhat re-directed and re-situated. The response supports the overall TSU, "divergence".

Meanwhile, the iterative event carried from the previous section, lasts throughout the unit, and is cut-off in a causal manner together with the voice in the end of the unit. See Figure 4.16 and listen to Sound example 4.16.

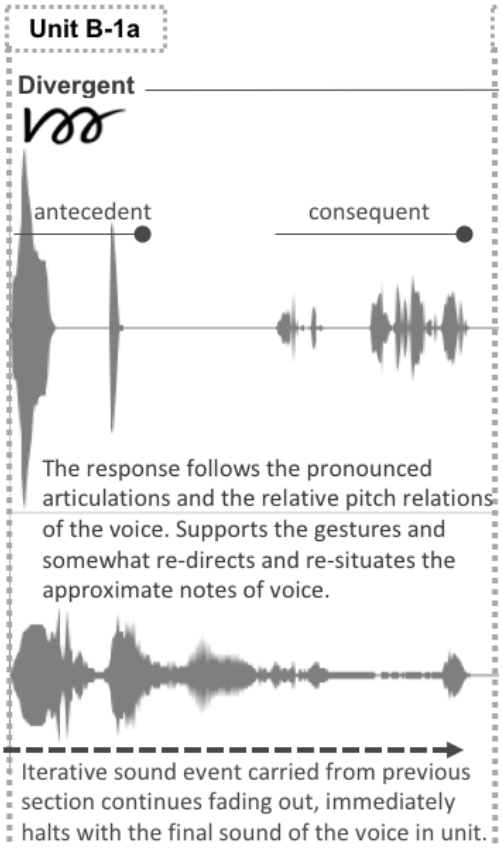

Figure 4.16 : Section B, Unit B-1a, Similarity Response

Difference Response: As the voice gets more active through a series of movements and sound types, (contrasting the first section), the difference response becomes sparser in terms of material types and events. In this unit, does not add anything new; there is the continuing the tail from the end of the last section.

The difference response sustains the spaciousness that is established from the previous section. This reverberant spacious resonance, contrasts the close-up, intimate position of the voice. As the sound event from the previous unit resonates throughout the unit, there is a single fluty tone that flows along with it in an airy and light manner. See Figure 4.17 below; listen to Sound example 4.17.

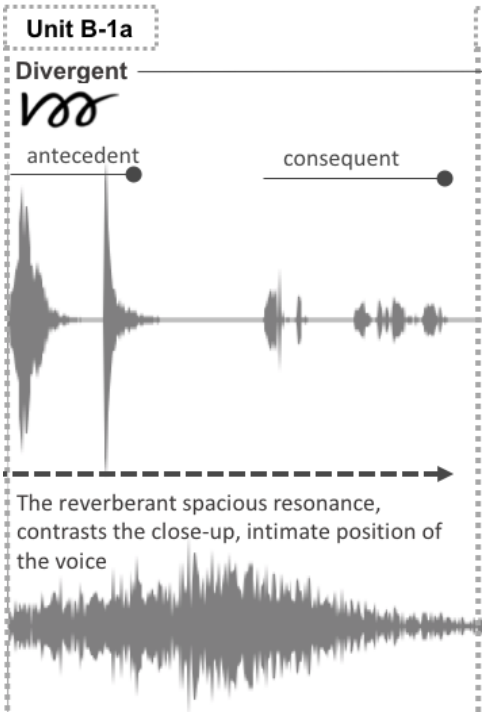

Figure 4.17 : Section B, Unit B-1a, Difference Response.

Unit B-1b

Table 4.5 : Quest(ion)s, Unit B-1b.

SUMRU'S VOICE	
Sound Types	**Energy/Motion Trajectories & Extrinsic Notes**
Vowels are rarely uttered, unit is mainly within the unvoiced noise domain.	This unit is all whispered, implying sense of intimacy
There is no clear pitch content, but a sense of relative frequency height creating various contours.	There is a feeling of moving forward. No silence throughout the unit, sung in a single breath with a fast pace of interweaved brief sound events.
-Lots of transients through two recurring siblants: "s" and "sh" along with other noise content from the whispers. -In terms of timbre, the sibilants create brightness (as they are strong in high frequency content, (2-10 kHz)) -The whispered low tones create rumbles.	Short regular rhythmic material is introduced; wrapped around the irregular. Transient sounds foreground the regularity in listening. There is a clear stop at the end of the phrase.
---	TSU: Divergent

Similarity Response: Similarity response uses close-up recorded events for supporting the immediacy and intimacy of the voice. The siblants in the voice stand out, because of their bright quality; these sounds are mimicked within the response

with taps creating transient impulse attacks, together with high pitch content along with various screeches. The similarity response also imitates and reproduces some rhythmic motifs, and pushing further and propelling forward the idea of rhythmic regularity. See similarity response in Figure 4.18 and listen Sound example 4.18.

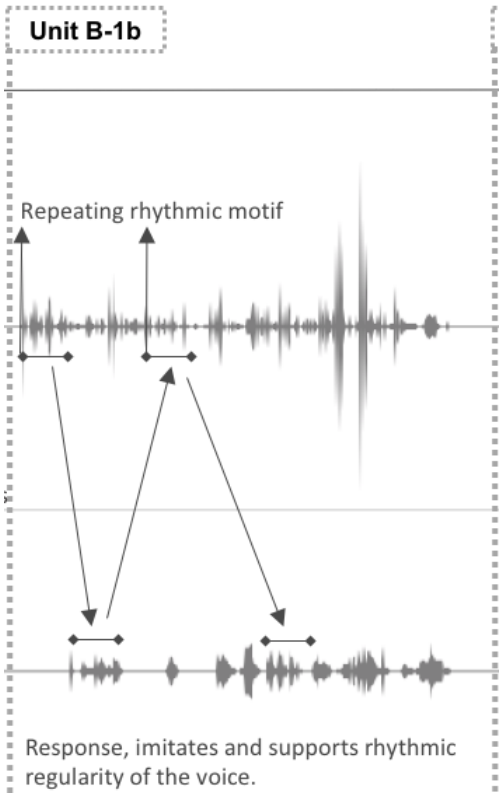

Figure 4.18 : Section B, Unit B-1b, Similarity Response.

Difference Response: The difference response contrasts the agile noise-based voice section, with a slower inner temporal pace and uses layered long tones, while keeping the unstable and non-fixed characters of tones. The response supports the phrase structure of the voice, by loosely synchronizing with various cues in the voice.

Again, here the notion of similarity and differences become blurry, the sparser I keep the response, there is a potential that it functions like a supporting element, an accompaniment, or somewhat of a soundtrack for the voice, losing independence. On the other hand, the response could also be heard as independent; as it moves much slower than the voice, functioning on a different temporal layer with contrasting sound types that distinguishes it from the voice. There is a fine balance between activity and passivity, that may blur the lines between unity/independence and similarity/difference in listening experience. For the response here, both independence/supporting, activity/passivity are an inclusive set of meanings that could be derived; it depends on

the interpretation of the listener. See difference response in Figure 4.19 and listen Sound example 4.19.

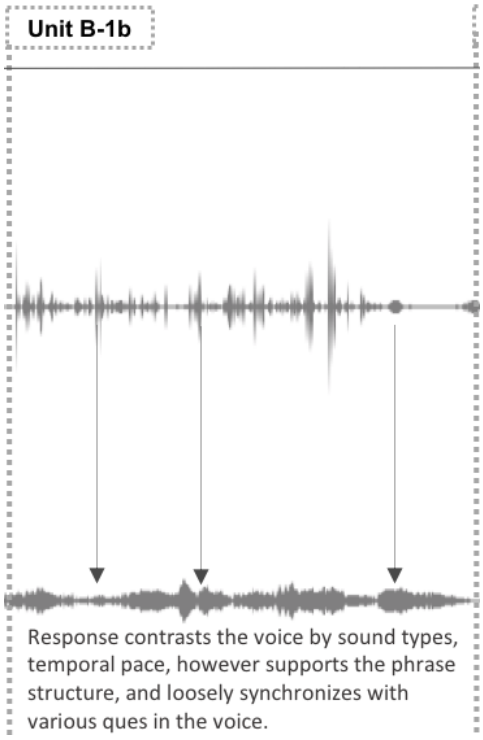

Figure 4.19 : Section B, Unit B-1b, Difference Response.

Unit B-1c

Table 4.6 : Quest(ion)s, Unit B-1c.

SUMRU'S VOICE	
Sound Types	**Energy/Motion Trajectories & Extrinsic Notes**
Speech-like manner, starting with whispers and continues with voiced vowels along with the use of variety of consonants.	Unit begins with a deep immediate breath, to catch breath from previous unit and gain momentum for the next. This is a striking characteristic that pumps life into the acousmatic voice. Although the body is not present, it is strongly implied through her breathing.
Contours frequency are established by relative height with no clear pitches.	Consists of one gesture sung in one breath, with clear a motion forward.
The unit ends with a clear pitched note, "D".	The whispers are somewhat accented, and the voiced vowels brings the listener out of the intimate sound environment.
There are slight pops and rumbles within the recording caused by the breath, because of the proximity to the microphone.	TSU: Divergent

Similarity Response: The similarity response responds to the contours of their frequency height of voiced vowels, with tone-based sounds that traces the overall movement. The response synchronizes with the breath of voice to gain momentum; and begins stronger in dynamics initiated by an impactful iterative sound. The response follows tracing the overall gesture of the voice and comes into unison with it the last pitched note of voice: the note D. See similarity response in Figure 4.20 and listen Sound example 4.20.

Figure 4.20 : Section B, Unit B-1c, Similarity Response.

Difference Response: The difference layer continues following the overall phrase structure of the voice and accompanies it by tones with breathy timbres, somewhat matching the whispering character of the voice. It continues moving in slower temporal pace of movements than of the voice; and does not entrain with the minute details of the voice. The layer differentiates itself from the voice on level of sound types as well as polyphonic density of events. The difference response begins with a chord (synchronized with the breath of the voice), some elements from within the chord, turn into melodic motifs and others function just as static textural elements. The unit ends in an imitative manner, echoing the last two utterances of the voice with new sound material: attack impulses that have some pitch content. See difference response in Figure 4.21 and listen Sound example 4.21.

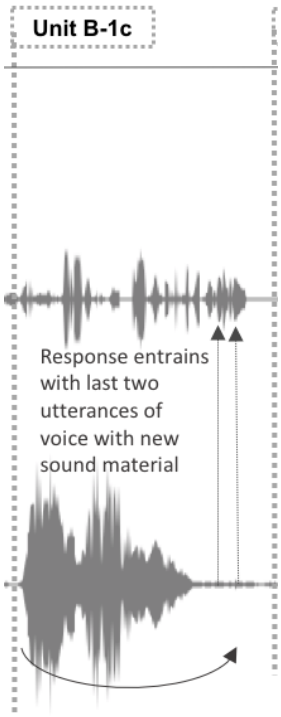

Figure 4.21 : Section B, Unit B-1c, Difference Response.

Unit B-1d

Table 4.7 : Quest(ion)s, Unit B-1d.

SUMRU'S VOICE	
Sound Types	**Energy/Motion Trajectories & Extrinsic Notes**
-Begins with whispered speech-like utterances. -Then immediately moves into fragmented vowels and glottal stops. -Ends with two pitch-steps, fluty timbre.	Short fragmented sounds quickly pick up "momentum" by means of accelerando.
Regularity in rhythmic material	Because of guttural sounds, and fragmentation, there is an impression of difficulty in expressing something. This creates a feeling of tension that arises in my listening.
---	In the end of the unit, the two ascending fluty pitches alludes to the beginning of the piece and awakens the "questioning" character.
---	TSU: Moving forward

Similarity Response: The response continues and develops the previously introduced material with tone-based material. Along with the sudden stops and fragmentations of

the voice, the tone-based sounds of the response are coupled with interruptions of noise-based material.

My body translated the tension that arose from my listening, caused by guttural pressure and fragmentation in voice, into the response with rubbers placed on strings. The rubber doesn't easily flow on strings as there is resistance due to friction; this causes squeaking sounds. However, as an overall feeling, the response supports the forward motion in the voice, instead of causing a form of heaviness. It propels the movement forward by creating expectations, and later synchronizes with the rhythmic material of the voice.

The response traces and frames the overall movement of the voice; and ends the rhythmic development together with the voice. It imitates the two last utterances of the voice, by tone-based sounds that glide upward in pitch leaving the gesture up in the air, non-resolved. See similarity response in Figure 4.22 and listen Sound example 4.22.

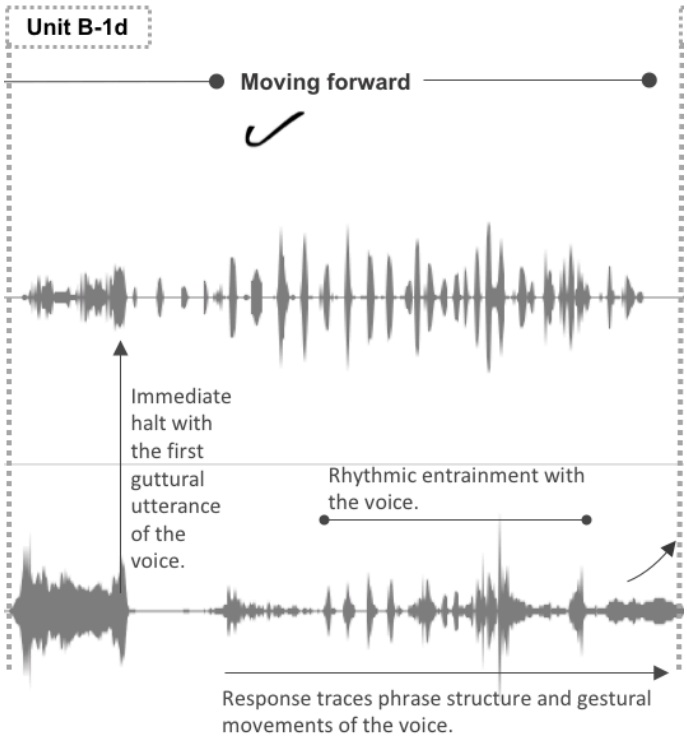

Figure 4.22 : Section B, Unit B-1d, Similarity Response.

Difference Response: The response layer continues with the same sound-type and behavioral approach from the previous unit, and does not change with the motion trajectory, nor to the very distinctive fragmentation of the voice. Response loosely traces the phraseological structure of the voice. There is a slowing down of, and a

decrease in musical activity almost in a form of inertia in the response, contrasting the voice layer. Here the response layer becomes looser in terms of relationality, becoming more independent. See difference response in Figure 4.23 and listen Sound example 4.23.

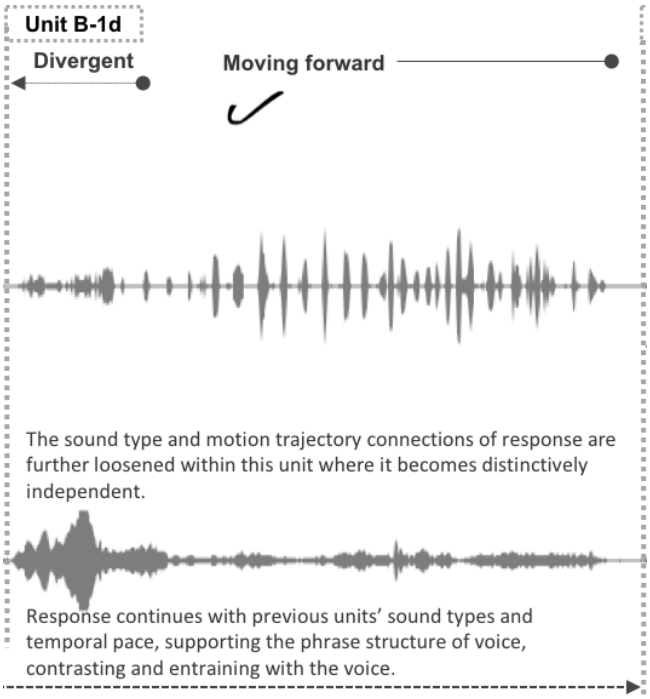

Figure 4.23 : Section B, Unit B-1d, Difference Response.

Unit B-1e

Table 4.8 : Quest(ion)s, Unit B-1e.

SUMRU'S VOICE	
Sound Types	**Energy/Motion Trajectories & Extrinsic Notes**
Short event with speech-like utterances	Nasal ascending sound in the end of the unit, followed by a pause, implies questioning.
-Pitch goes down like as if making a statement, -Immediately followed by a nasal sound gliding upward in pitch.	This sound event defies closure and propels expectation, as if waiting for something to happen.
---	TSU: *Statement*

Similarity Response: The tone-based sound that was left in the air from the previous unit continues until the end of the first sound event of the voice, and falls down in pitch; resolving together with the voice. The response supports and further exaggerates the upward pitch glide on the second event of the voice. The exaggeration expresses a

humorous tone; alluding to the tension of the previous unit by the use of a very cliché characteristic movie sound effect used in horror movies. At the end of the unit, there is a pregnant pause that holds a form of tension, an expectation. See similarity response in Figure 4.24 and listen Sound example 4.24.

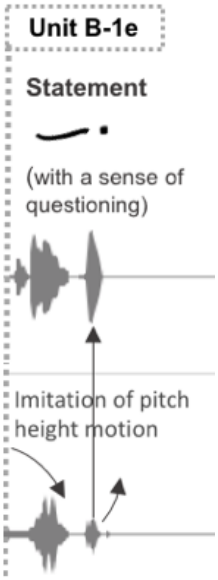

Figure 4.24 : Section B, Unit B-1e, Similarity Response.

Difference Response: The inertia continues with this unit, and the response is aligned temporally with two sound events of the voice, before drifting away completely. The last sound event of the response implies that there is no definitive closure, that the end of the section is a midway stop that picks up immediately with next section. See difference response in Figure 4.25 and listen Sound example 4.25.

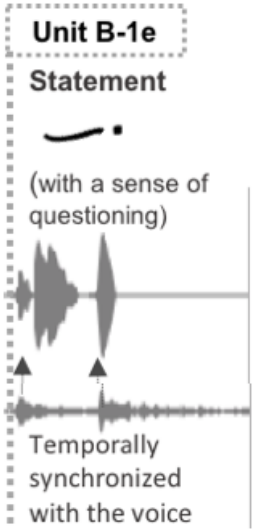

Figure 4.25 : Section B, Unit B-1e, Difference Response.

The complete graphical analysis of similarity and difference responses of Section B1 are provided in the following two Figures, 4.26 and 4.27. Listen to the corresponding Sound example 4.26 and Sound example 4.27.

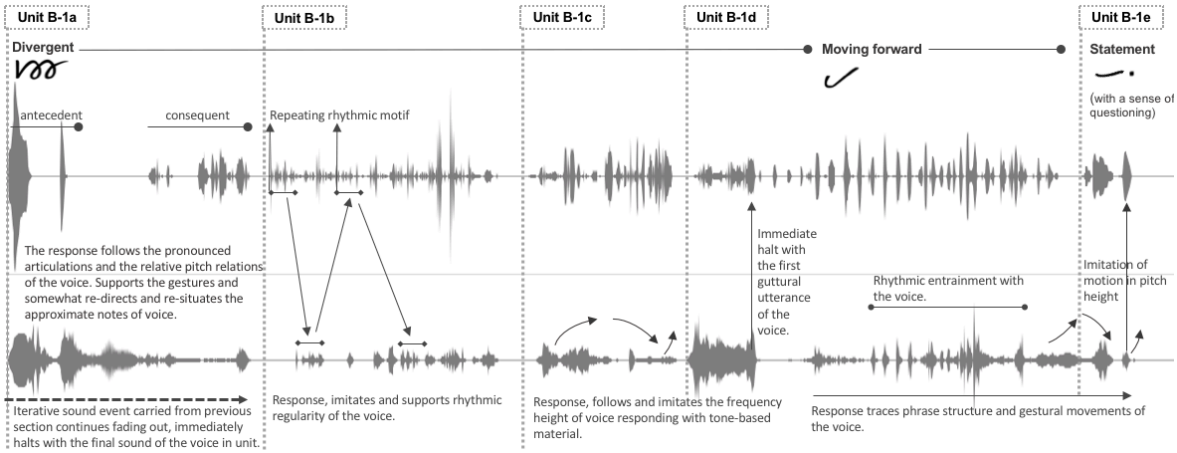

Figure 4.26 : Quest(ion)s: Section B1, Similarity Response.

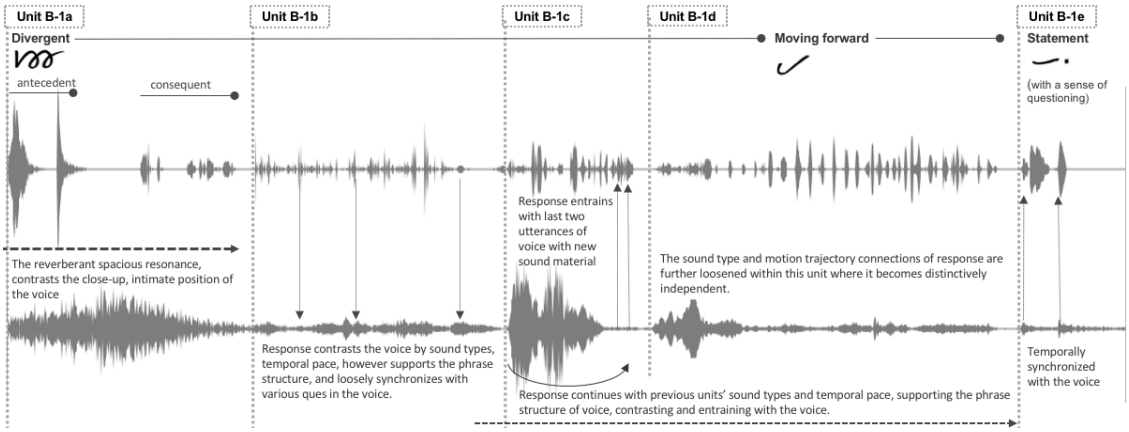

Figure 4.27 : Quest(ion)s: Section B1, Difference Response.

Section B2

Section B2 is still within a "divergent" character, and the voice keeps on varying the type of material in a progressive spirit. The section comprises four units. Section B2 starts off with a brief "in suspension" TSU, this is contrasted this by high-energy motion that is intentionally "moving forward" within B2-b, which then transitions into the "inertia" slowly decreasing in energy, which then quickly moves into the "divergent" phase in B2-c going all the way to the end of B2-e.

Depending on the function and sound types of events, I divide Section B2 into the following four units, indicated within the Figure 4.28, presented below. Listen Sound example 4.28.

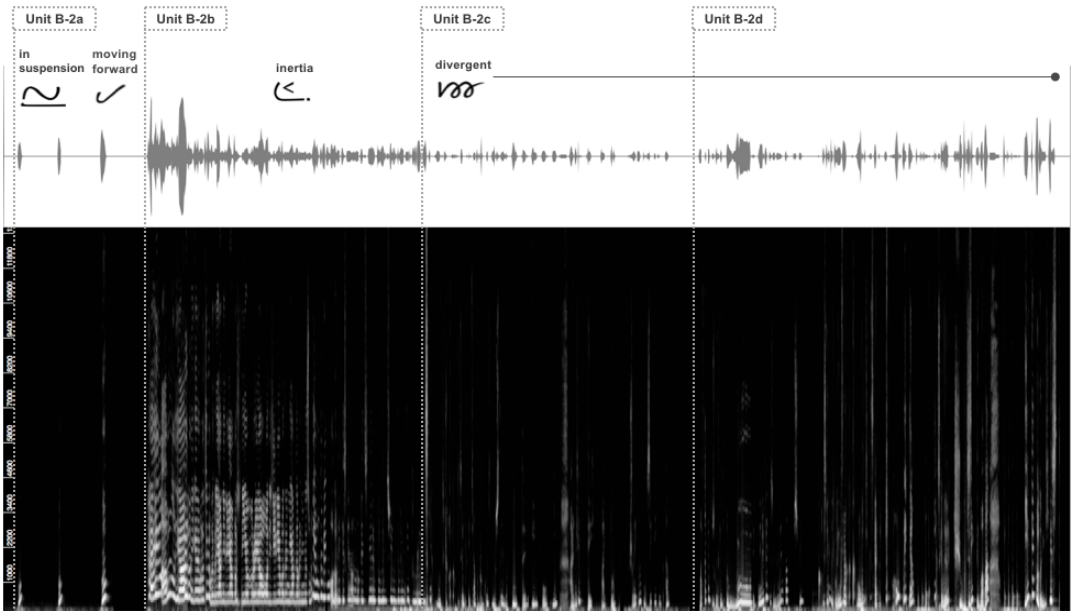

Figure 4.28 : Sumru Ağıryürüyen's improvisation; Section-B2 Analysis.

In the difference response, the source-cause relations are more remote in this section compared to previous sections. There is an increasing independence in the domain of sound types, gestures, phrasings and internal temporal pace.

Unit B-2a

Table 4.9 : Quest(ion)s, Unit B-2a.

SUMRU'S VOICE	
Sound Types	**Energy/Motion Trajectories & Extrinsic Notes**
Three short sound events with soft onset and terminations. Sparsely occurring events, i.e. events are inserted with silences in between.	-First two sound events and silences, imply that there might be development, yet there is no clear sense of directionality. The unit is characterized as "in suspension", as it sits in between non-relief (sense of tension) and expectation. - The third event rises in dynamics, re-contextualizing the previous two, awakening expectation, tension and imbuing directionality, with a sense of "moving forward".
Three sound events are sung with the vowel "U".	The sound material gliding up in frequency content, implies a level of questioning. Silences seem charged, there is almost a demand to know, or a wanting to be heard.
Frequency content glides up at end of each sound event.	TSUs: In suspension & Moving forward.

Similarity Response: The similarity response imitates the voice using breathy and fluty tones that glide up in pitch. It supports the crescendo and the build-up of tension, in the voice. The response supports the overall gesture of the intentionality of the voice. The sounds of the response get longer with each event, and the third event rises in dynamics and pitch content building up and leading into the next unit. See similarity response in Figure 4.29 and listen Sound example 4.29.

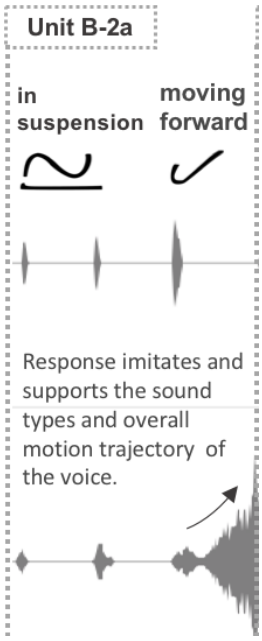

Figure 4.29 : Section B, Unit B-2a, Similarity Response.

Difference Response: There are two types of sounds in the difference response, long and fluty sounds with slow onset and termination, along with multiphonic notes that have an articulate onset and soft terminations.

The response does not entrain with the voice, while the voice is "in suspension" (with the first two events). The inner, slow yet forward moving temporal pace of events and a feeling of calmness pervades the response. With the third event however, where voice builds up tension, the difference layer picks up the intentional motion of the voice, leading the unit with a short build up into the beginning of the next unit. See difference response in Figure 4.30 and listen Sound example 4.30.

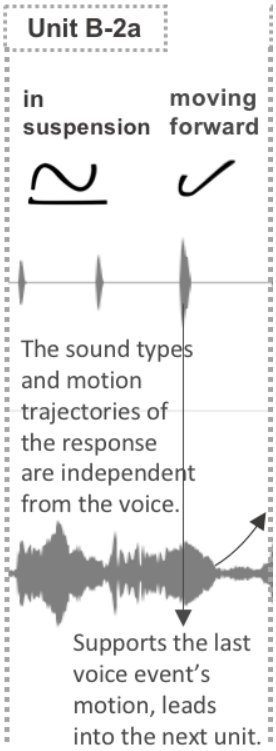

Figure 4.30 : Section B, Unit B-2a, Difference Response.

Unit B-2b

Table 4.10 : Quest(ion)s, Unit B-2b.

SUMRU'S VOICE	
Sound Types	**Energy/Motion Trajectories & Extrinsic Notes**
-Yodel-like singing, with sudden changes in register. Highest dynamics so far. -Continues with pitched singing, that is coupled with speech-like quality. Drops in dynamics.	-Begins confident, moving purposefully throughout the course of the event. -Later the energy goes down in dynamics and there is a deceleration of movement, a drowning of energy, but momentum continues to push the music forward.
---	TSUs: Moving forward & Inertia.

Similarity Response: The similarity response follows the yodel-like *forte* introduction with a series of screeches performed with rubbers on the strings; it imitates the force and high energy expressed in the voice.

As the energy falls and smoothly transitions into tone-based utterings in the voice, the singing settles into longer and more stable tone-based expressions. In my performance, I found that I wanted to single out these settled and stable tones, and was inclined towards a gesture that imitated a motion as if the tones were being pulled-out, singled-out. I was drawn to pulling (rubbing) of a fishing line tied to strings, corresponding to

these tones. The use of bowed fishing line was based on both an extrinsically tied gestural movement (did not match the sound type of the voice) and intrinsic relation, as it imitates, doubles, and layers the pitch content of the voice. See similarity response in Figure 4.31, and listen Sound example 4.31.

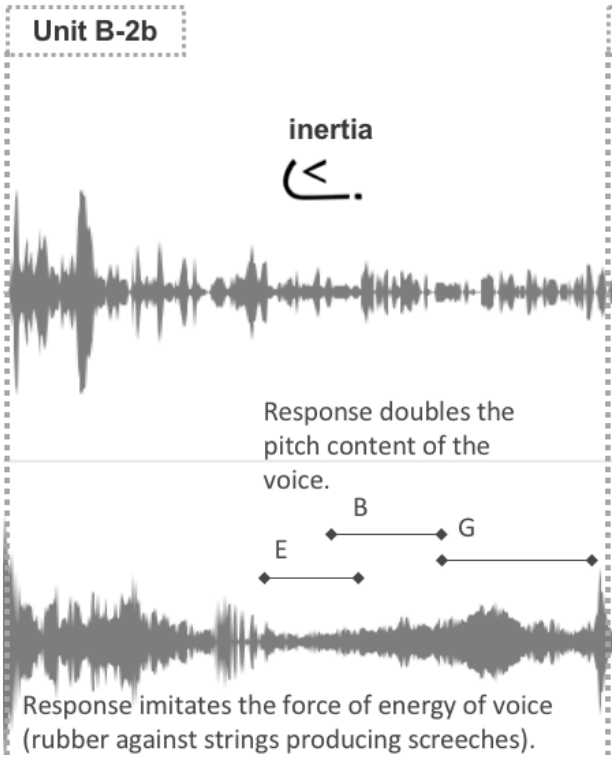

Figure 4.31 : Section B, Unit B-2b, Similarity Response.

Difference Response: The build-up from the previous unit, leads up to a percussive transient sound (an impulse attack), which initiates another sound that is iterative and noise-based (fingernails sliding on keyboard) moving continuously in the background. This sound is coupled with two other sound types that are sound materials from the previous unit: the fluty tones and multiphonic tones.

In contrast to the inner temporal pace of the voice layer, difference layer continues with the slow pace of events and even gets slower and calmer, stretching events. The juxtaposition of the two time-fields, and different sound types, draw out a clear counterpoint, differentiating and individuating the layers furthermore. The phrase structure leaks into and reaches out until the end of the next unit. See difference response in Figure 4.32 and listen Sound example 4.32.

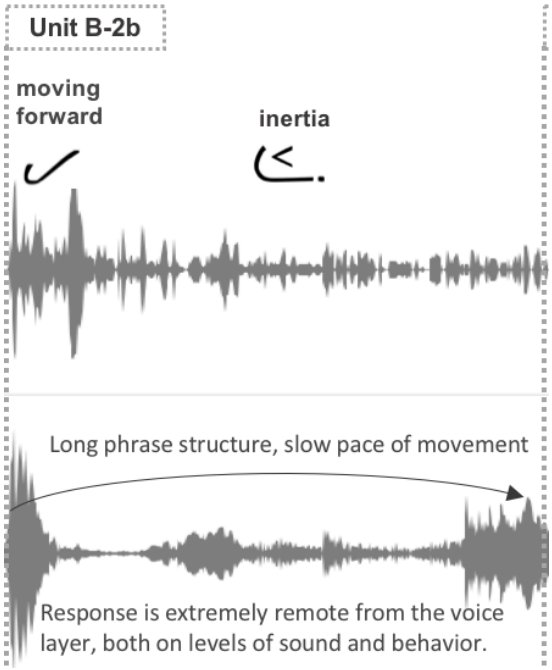

Figure 4.32 : Section B, Unit B-2b, Difference Response.

Unit B-2c

Table 4.11 : Quest(ion)s, Unit B-2c.

SUMRU'S VOICE	
Sound Types	**Energy/Motion Trajectories & Extrinsic Notes**
-A sudden transition of sounds, introducing new types: tongue clicks (impulse sound types) are introduced along with speech-like utterings, i.e. proto-language. - Various vowels are uttered. Vowels have relative pitch heights, and not clear fundamentals.	-Starts with sudden transition of sound materials and inner pace of movements, however the momentum from the last unit is kept. Therefore, moving from one unit to the next is not a rupture but a sudden transformation of energy. - However soon, the momentum slows down. - There is a brief pause at the end of unit that does not imply a clear sense of closure.
Regularity in rhythm	TSU: Divergent

Similarity Response: The similarity response follows the sudden change in the voice layer by moving from long tones to short and varied sound types, imitating the variety of sound types in the voice. The response also imitates the gestural events, and entrains with the regularity of rhythm in the voice. As the ending of the voice does not create a clear sense of closure, the response picks up on this and after the articulation of the final sound event, there is a picking up of energy to lead into the next section. See similarity response in Figure 4.33 and listen Sound example 4.33.

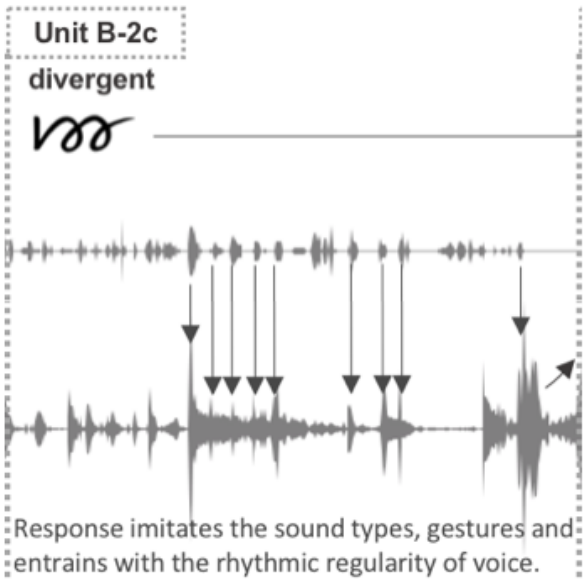

Figure 4.33 : Section B, Unit B-2c, Similarity Response.

Difference Response: The difference layer does not respond to the sudden change in the voice layer, continues the phrase from the previous two units playing minutely with textures and intensities, and continuing loose and remote relationality. Comes to a clear arrival at the end of the unit. See difference response in Figure 4.34 and listen Sound example 4.34.

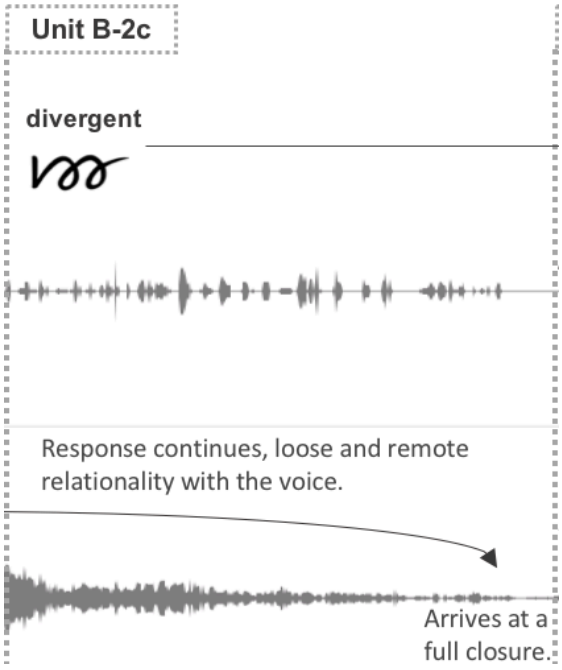

Figure 4.34 : Section B, Unit B-2c, Difference Response.

Unit B-2d

Table 4.12 : Quest(ion)s, Unit B-2d.

SUMRU'S VOICE	
Sound Types	**Energy/Motion Trajectories & Extrinsic Notes**
-The speech-like character continues, together with a wide range of sound types including consonants and vowels. - New variety of sound types are added, like plosives (pops), planky and other percussive, sounds. - Very light, agile, short and varied gestures. Generally low in dynamic.	The unit is highly divergent and varied, with a high drive of energy that flows forward. The compression of temporal pace and variety of events brings an element of chaos into the unit.
This could be considered the highest point of development of the section B, where we hear a compression of temporal pace of events, with a wide variety of sound types and fleeting gestures.	TSU: Divergent

Similarity Response: Using a wide variety of sound types, the similarity response keeps on mimicking and imitating the sounds of the voice. It is highly synchronized with the voice, uses a wide variety of sound types, and create a fast series of source-cause relations.

As I looked for various bodily gestures along with the affordances and movements of the objects that initiate, complete and cut various relations with the voice, the intensity of interaction was at its peak. The variety of sounds happening at a fast pace, required the most amount of rehearsal on the performance part. Tracing the borders of what is possible and not possible, acknowledging actual physical limits of my own and instruments bodies as well as possibilities of sound, was a challenge that that excited me. This challenge I believe could be felt and followed within the music, as energy in itself. See similarity response in Figure 4.35 and listen Sound example 4.35.

Figure 4.35 : Section B, Unit B-2d, Similarity Response.

Difference Response: In the beginning of the unit, the response begins with high energy, setting various screeches and iterative sounds in motion and tracing and synchronizing with some movements and various cues of the voice. Response is still moving at an intrinsically slower pace, there is a focus on building stable layers.

With the second phraselet of the voice, the response begins with calm sustained tones, there is a feeling of heaviness unlike the lightness of the voice layer, subs are roaring. Soon after, the response begins building up intensity in texture, speed and dynamics that are in stark contrast to the voice layer, with a clear "momentum". The ending of the unit is aligned with the end of the phrase of the voice. See difference response in Figure 4.36 and listen Sound example 4.36.

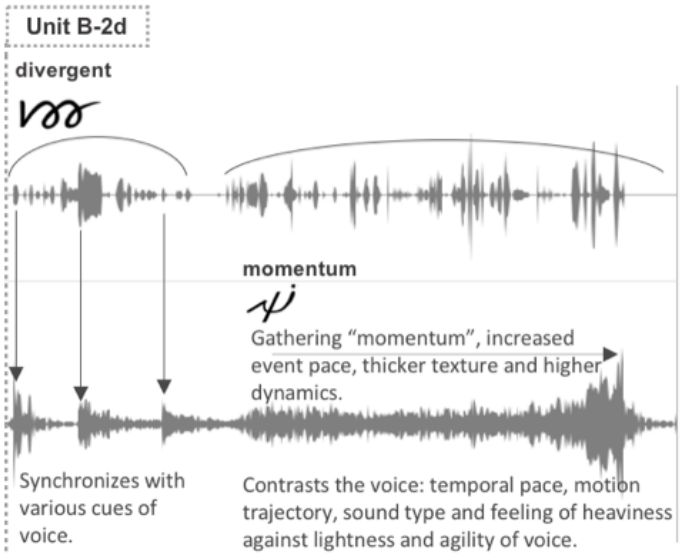

Figure 4.36 : Section B, Unit B-2d, Difference Response.

In the following two Figures, 4.37 and 4.38, the graphical analysis of similarity and difference responses of Section B2 are provided. Listen to the corresponding Sound example 4.37 and Sound example 4.38.

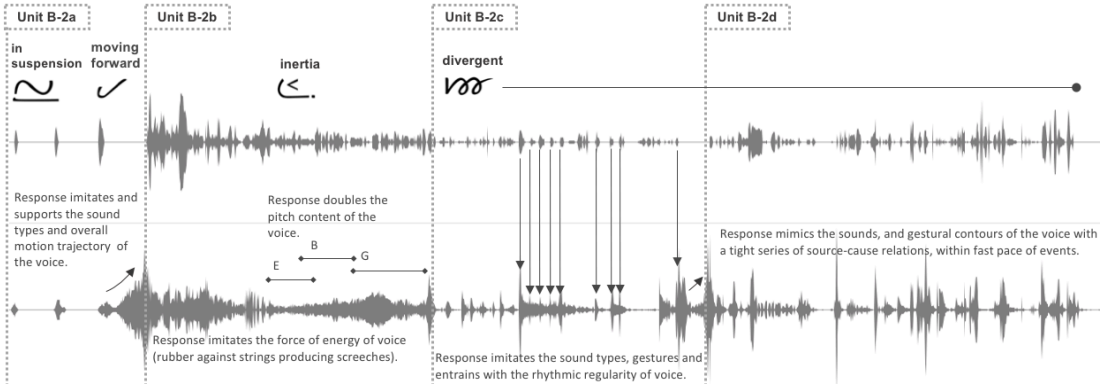

Figure 4.37 : Quest(ion)s: Section B2, Similarity Response.

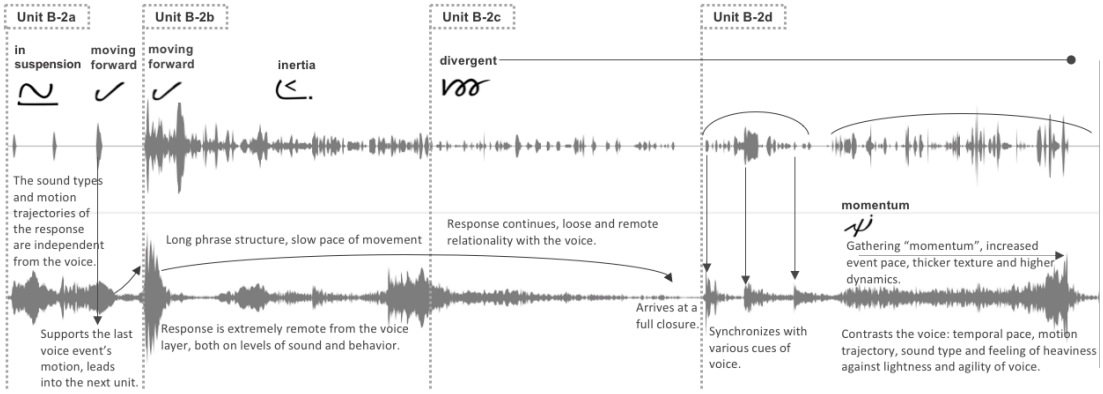

Figure 4.38 : Quest(ion)s: Section B2, Difference Response.

4.2.3.3 Quest(ion)s: Section C

Section C, consists of three units. Unit C1 introduces a new sound type that is performed with high energy, and clear "motion forward", which marks the highest dynamic introduced in the piece so far, forming the climax of the piece. Unit C2 begins with a questioning phase "in suspension", very similarly that of the introduction section A, however immediately changes trajectory by gaining momentum with clear directionality. The directionality arrives at Unit C3 with a "*statement"*. The return to a similar musical material from the beginning, awakening a form of questioning and then, a statement, loosely implies an ABA form. See Figure 4.39 below; listen to Sound example 4.39.

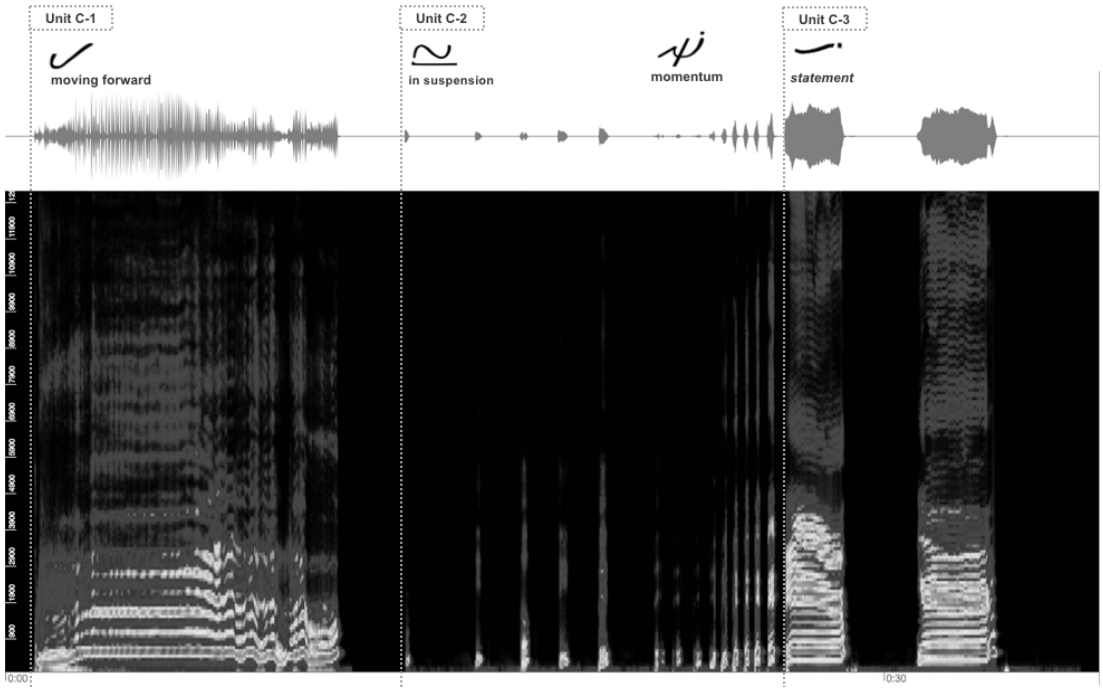

Figure 4.39 : Sumru Ağıryürüyen's improvisation; Section C Analysis.

Unit C-1

Table 4.13 : Quest(ion)s, Unit C-1.

SUMRU'S VOICE	
Sound Types	**Energy/Motion Trajectories & Extrinsic Notes**
The sound type is a new sound type, that hasn't been introduced earlier and will not be used later on. -It is a continuous iterative sound, with dense iterative texture moving through various unstable pitch heights.	Imbued with high drive of energy, with a sudden burst of increased intensity and high dynamics; marks the climax of the piece. - The character of sound event is confident and purposeful. As it has clear projection of energy and a propulsive drive; however, the motion is somewhat erratic and unpredictable.
Highest dynamic so far.	There is an upward release at the end rather than a conclusive fall, somewhat like taking flight, leaving things in the air.
---	TSU: Moving forward

Similarity Response: The response mimics the iterative sound type, and introduces a new sound material as well. The response further intensifies the forward motion of the voice, densifying texture by increasing layers, increasing pace of iterations and dynamics. At the end of the unit, the upwards motion of the voice that leaves the event

in the air is supported within the response with a resonance that is carried on into the next unit. See similarity response in Figure 4.40 and listen Sound example 4.40.

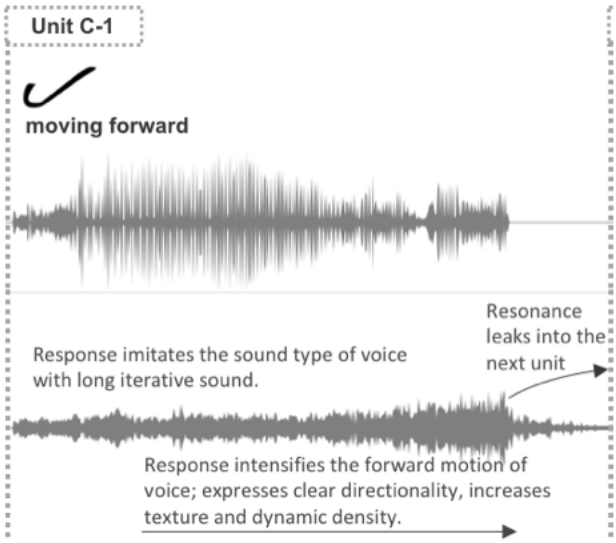

Figure 4.40 : Section C, Unit C-1, Similarity Response.

Difference Response: Couples the high energy and purposeful motion of the voice with completely different sounds and behavior. The internal temporal structure speeds up in this unit. It consists of irregular articulate temporal events that create motifs and phrases with pitched material. The unit ends together with the first sound event of the voice in next unit; which results in initiating unit C-2 a few seconds earlier. See difference response in Figure 4.41 and listen Sound example 4.41.

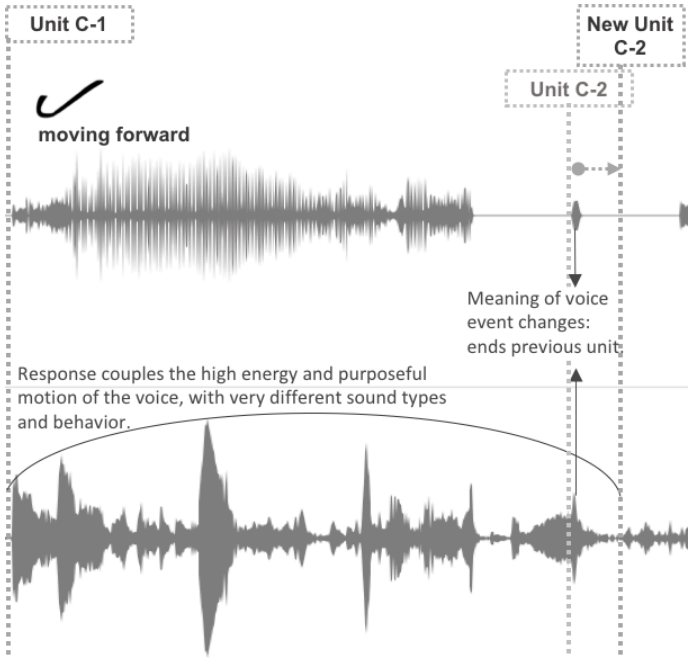

Figure 4.41 : Section C, Unit C-1, Difference Response.

Unit C-2:

Table 4.14 : Quest(ion)s, Unit C-2.

SUMRU'S VOICE	
Sound Types	**Energy/Motion Trajectories & Extrinsic Notes**
-Short notes with soft onset and terminations. Silences are articulated. - No clear fixed-pitch material, at end of each short utterance, the pitch glides up.	Short sound events with rising pitch at the end, a form of floating in space without much action and a clear directionality. There is a sense of simply being, and a slight implication of questioning due to the rising pitch content at end of the events. However, this is not a passive settled state; there is a sense of expectation.
Smooth timbre, various utterances of syllables, vowels "a", "I", "da", "be" as well as an "m".	The suspending and questioning quickly gains intentionality and a clear motion forward, through acceleration of events and a crescendo, creating momentum.
---	TSU: In suspension & Momentum.

Similarity Response: The similarity response synchronizes with the sounds in the voice, and mimics it using short sounds with rising pitch content near terminations. As an extramusical element, the fluty chirpy bird sounds that leaked into Sumru's recordings I found, had an affective trace on me, and their agency played a role on my choice of sound material as much as Sumru. On top of this, the physical motion of playing the wooden sticks placed between strings, are quite intuitive in creating upward bending pitches (imitating Sumru's voice here). Here, as a supporting element for the questioning and suspending in the voice, I used the pedal to create a vast, reverberant space to imply spaciousness, as a feeling of calling out for something.

These sparse and spacious events slowly begin to gain momentum, following the gestural motion of the voice, as there is an acceleration of events and increase in dynamics. See similarity response in Figure 4.42 and listen Sound example 4.42.

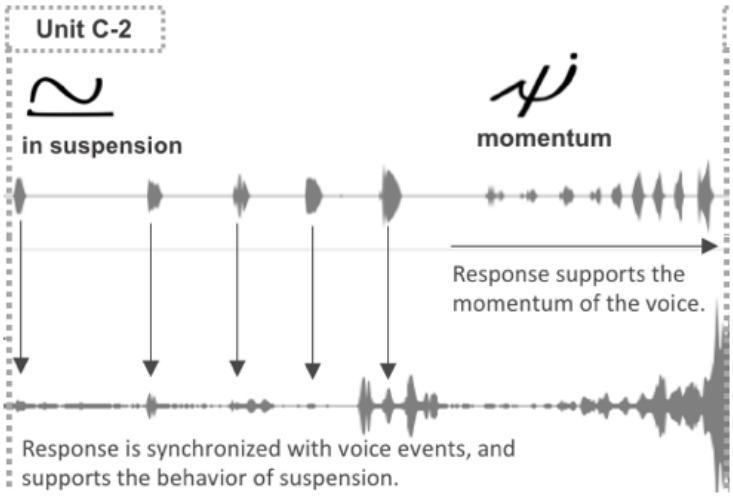

Figure 4.42 : Section C, Unit C-2, Similarity Response.

Difference Response: Here in contrast to low dynamics and sparse events occurring in the voice, the response is active (motion-wise) and "moves forward". The sounds that drive energy forward are short and plucked string sounds that are coupled with a low bass drone that lingered from the previous unit.

With the accelerando and crescendo of the voice, the short sounds drop in dynamics disappearing into the buzzing bass tones that rise and become more layered. As the voice gains momentum to arrive somewhere, in contrast, the response loses momentum; it is in "inertia". See difference response in Figure 4.43 and listen Sound example 4.43.

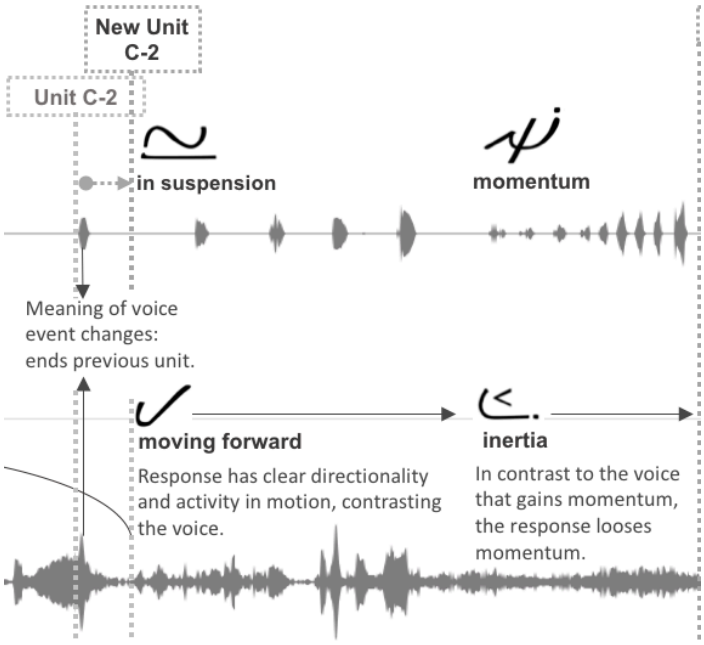

Figure 4.43 : Section C, Unit C-2, Difference Response.

Unit C-3:

Table 4.15 : Quest(ion)s, Unit C-3.

SUMRU'S VOICE	
Sound Types	**Energy/Motion Trajectories & Extrinsic Notes**
Here the sound types are longer in duration, they are pitch-based and the timbre is rougher and grittier.	The momentum from previous unit, leads into the two strong statements that are similar to the "*statement"* in section A-2.
These two sound events have an upward-gliding pitch at their termination.	The upward curves have a different meaning here, rather than a questioning, it illustrates a more playful and confident character, ending conclusively.
---	TSU: *Statement*

Similarity Response: The high-pitched fluty tones continue in this section, however they are coupled with sounds that are grittier in timbre. The response mimics the timbre characteristics, dynamics, and the duration of the voice. The texture is quite dense and layered here. The response also loosely imitates the ascending pitch at the end of each event. The final event's high-pitched fluty tones extend into the next section. See similarity response in Figure 4.44 and listen Sound example 4.44.

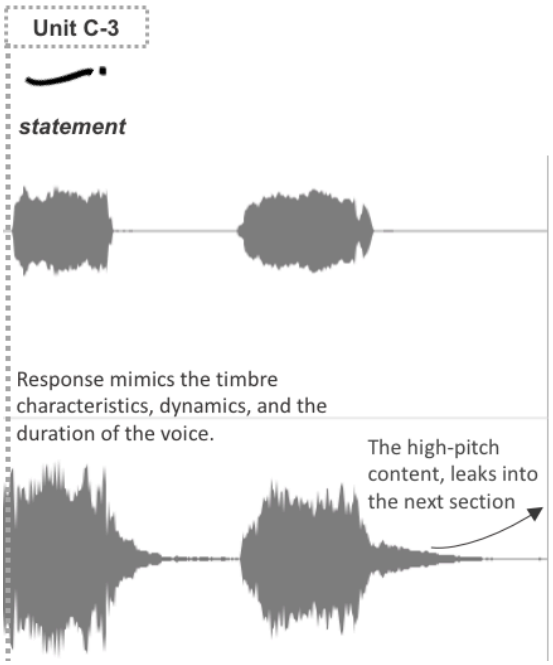

Figure 4.44 : Section C, Unit C-3, Similarity Response.

Difference Response: The inertia from the previous unit leads to an arrival point of stillness, with a sense of continuity. The response contrasts the voice with a calm sense

of arrival and status quo, moving into a texture-based approach in the unit. The piano I worked with, had very loose bass strings (as they were tuned one octave lower than the convention), therefore they tremble iteratively. And played together, they create large envelopment of space. Beginnings of voice events cause subtle dynamic excitations in the continuum of the response.

There is a feeling that something is happening, however it is still, and does not go anywhere causing any expectation, i.e. there is a globally stable energy without clear direction: expressing the TSU, "stationary". See difference response in Figure 4.45 and listen Sound example 4.45.

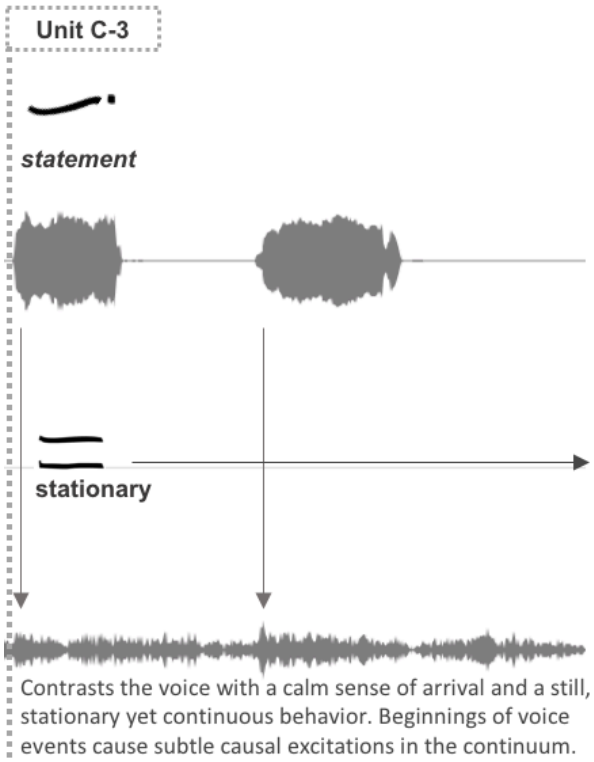

Figure 4.45 : Section C, Unit C-3, Difference Response.

In the following two figures, Figure 4.46 and Figure 4.47, the graphical analysis of similarity and difference responses of Section C, are provided. Listen to the corresponding Sound example 4.46 and Sound example 4.47.

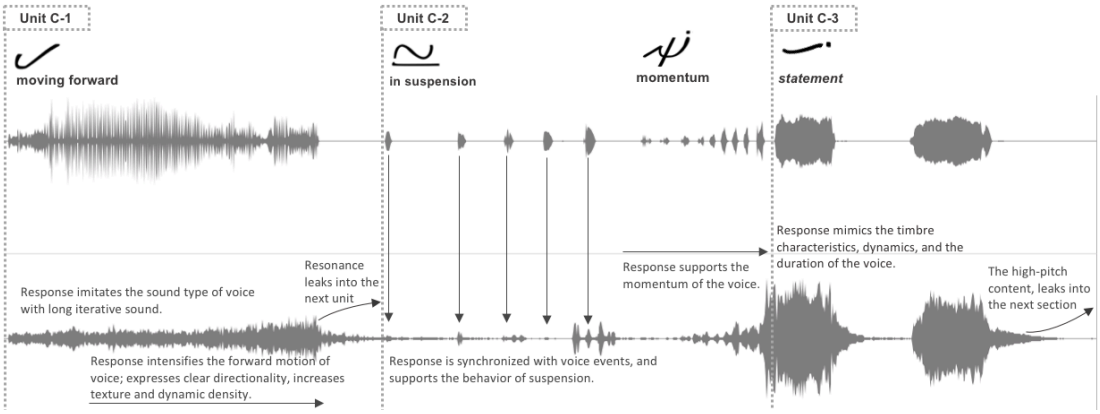

Figure 4.46 : Quest(ion)s: Section C, Similarity Response.

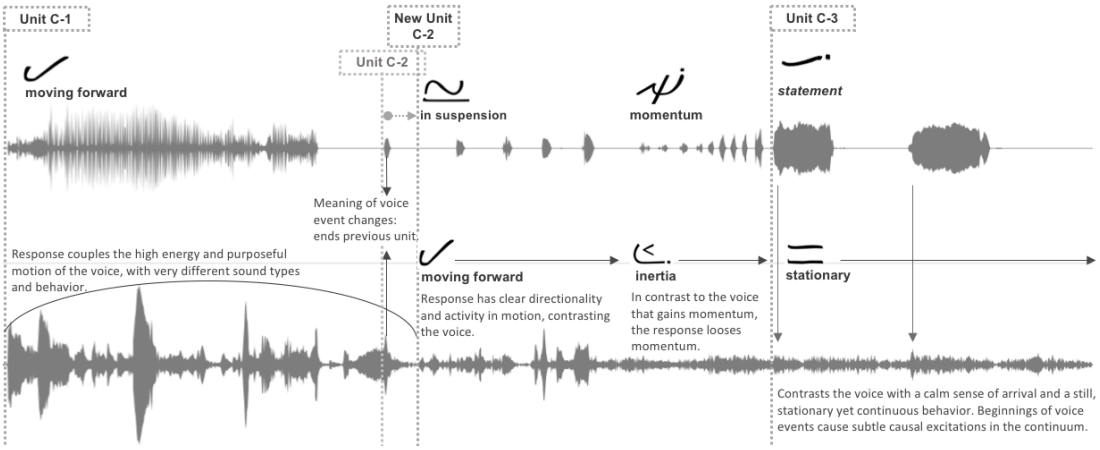

Figure 4.47 : Quest(ion)s: Section C, Difference Response.

4.2.3.4 Quest(ion)s: Section D

Section D begins in contrast with the ending of the previous section; with somewhat of a "questioning" that is expressed with short utterances that glide upwards in pitch, inserted with generous silences. However, after the third sound, the events gain "moving forward", there is a sense of directionality and intentionality; where we begin observing rhythmic regularity. After a silence, the events occur in double speed.

At the midst of momentum, the sound events begin slowing down and transform into longer and longer continuous tones; awakening a sense of "heaviness". Without arriving to a peak from the momentum that has been gained, we hear the tones begin giving hints towards an ending: with a *ritardando* and a stretching out of events as tones become longer. Although the sounds have recognizable pitch content, these pitches are unstable; this marks another sense of heaviness that awakens a sense of difficulty in continuing. The piece ends surprisingly in an agile short gesture, "halting"

with a final upwards motion in a playful manner. See Figure 4.48 below; listen to Sound example 4.48.

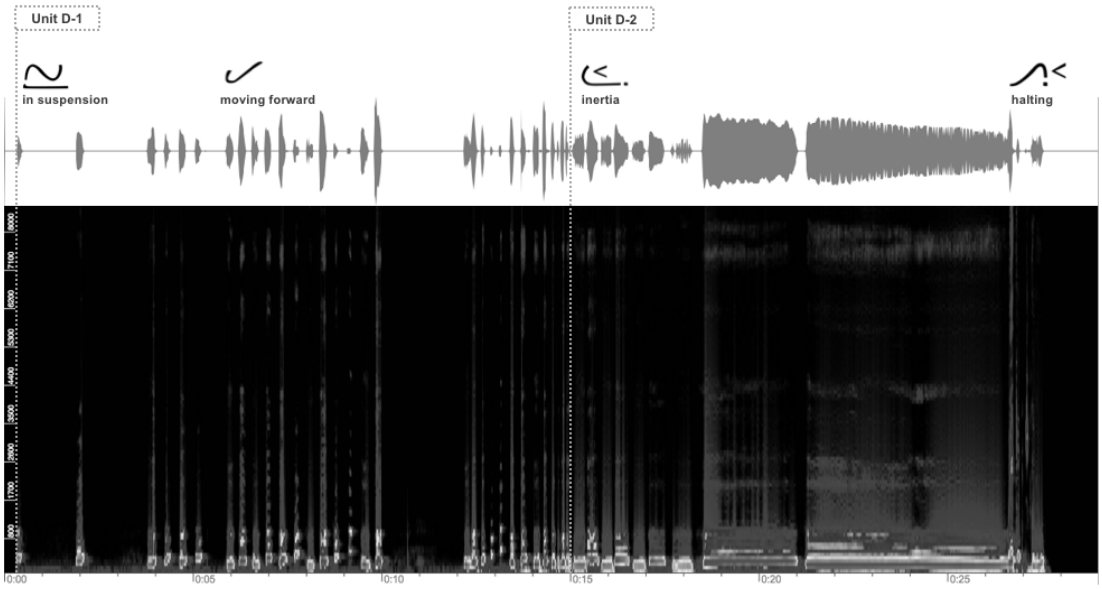

Figure 4.48 : Sumru Ağıryürüyen's improvisation; Section-D Analysis.

Unit D-1

Table 4.16 : Quest(ion)s, Unit D-1.

SUMRU'S VOICE	
Sound Types	**Energy/Motion Trajectories & Extrinsic Notes**
-Voiced nasal vowels, sung with closed mouth "m", resonating nasal cavity. -Short utterances along with silences. -Termination of each utterance glides upwards in frequency band.	-Starts with a feeling of suspended activity: "in suspension". - Quickly transforms movement into an intentional one, "moving forward". There is acceleration in pace and rising dynamics. - However the forward motion doesn't arrive at an arrival peak-point, instead it moves into the next phase (explained in unit D-2).
We see regular rhythmic occurrences of groups of sounds; and the pace accelerates.	TSU: In suspension & Moving forward.

Similarity Response: The response supports the suspended activity of the voice, and then the building of "moving forward". The events are highly synchronized with the voice, following the rhythmical regularity and pitch height. See similarity response in Figure 4.49, and listen Sound example 4.49.

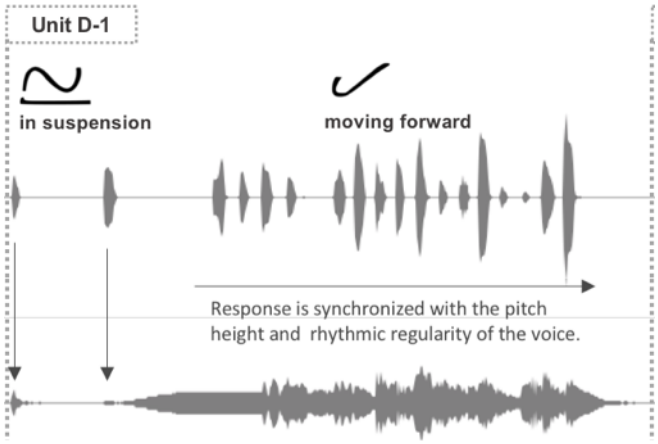

Figure 4.49 : Section D, Unit D-1, Similarity Response.

Difference Response: The continuous long bass, with iterative, trembling and buzzing strings are foregrounded here. They are coupled together with distant high-pitched sine-tone-like sounds that rise and fall in dynamics, and multiphonic sound events with fast, soft attacks and smooth, long terminations that mark and outline some movements of the voice.

The continuous bass trembling sounds, the distant pure high-pitched sounds, and spaced out events imbue the whole unit with calmness, creating a space that moves and breathes, falling contrary to the short and foregrounded events of the voice. The response floats in space without much action and a clear directionality; characteristics of "in suspension". There is no implication of relief but a sense of waiting and expectation for something to happen within suspension, without knowing when or what will be happening. See difference response in Figure 4.50 and listen Sound example 4.50.

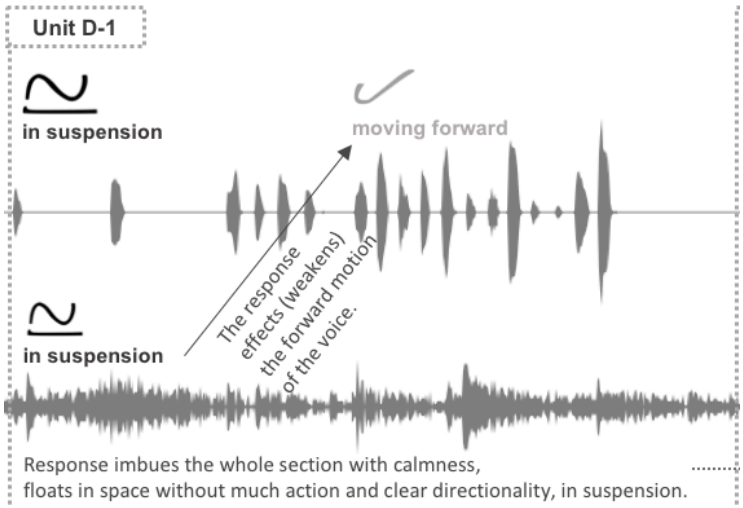

Figure 4.50 : Section D, Unit D-1, Difference Response.

Unit D-2

Table 4.17 : Quest(ion)s, Unit D-2.

SUMRU'S VOICE	
Sound Types	**Energy/Motion Trajectories & Extrinsic Notes**
-The short sounds from the previous unit slowly begins to transform into longer and continuous sounds. - The longer the sounds become, the more stable the pitch content gets. However, the longest and final event, is unstable. - The long unstable event, comes to a final halt, with a transient speech-like short event.	-Although there is a continuous energy from the acceleration of the previous unit, the pace begins to decelerate and turn into more static longer notes, through clear deceleration of movement, a slowing down, and a progressive decline of energy, an "inertia". -The decrease in intensity of musical activity comes to a sudden "halt" that brings the piece to a full closure.
---	The sounds are sung both with inhaling and exhaling, highlighting the act of breathing and body.
---	TSU: Inertia and Halting

Similarity Response: After the silence of the voice, the response expresses an intro that drives energy and supports the high energy of the next event of the voice, which appears accelerated in rhythmical pace. However, once the voice enters, the response begins giving signs of, and implying what is to come; anticipating the heaviness, a slowing down, a drop-in energy, that will occur next. The response slows down together with the voice, in a non-synchronous manner; until the last two long tones where it synchronizes temporally and pitch-wise. The tones have inharmonic components, the final long note mimics the instability of the pitch content of the voice. There is a feeling of "heaviness" in the energy motion trajectory.

The final event of voice contrasts the heaviness, as it is light and agile. The response entrains with the final gesture of the voice, and ends abruptly and playfully "halting". See similarity response in Figure 4.51 and listen Sound example 4.51.

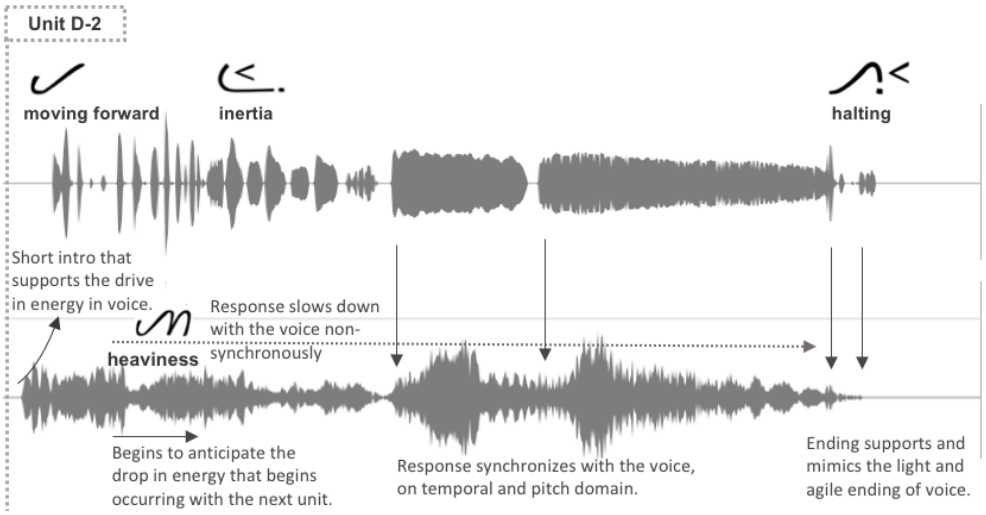

Figure 4.51 : Section D, Unit D-2, Similarity Response.

Difference Response: The response continues floating in space without much action and a clear directionality, characteristics of "in suspension". There is no implication of relief, but a sense of waiting and expectation for something to happen within suspension, without knowing when or what will be happening. In the beginning the response somewhat overrides the forward motion of the voice, making its sound events sound like utterances in stillness, stripping it from its clarity in forward motion and intentionality.

When the voice begins slowing down in inertia, the response functions to bring the voice to the foreground, as it is still moving "in suspension". The sine-tone-like pure tones have minute movements in pitch height, which loosely alludes to the unstable pitch content of the voice.

The light and agile ending of the voice is supported by the response, as it synchronizes with it through a final closing tremble. See difference response in Figure 4.52 and listen Sound example 4.52.

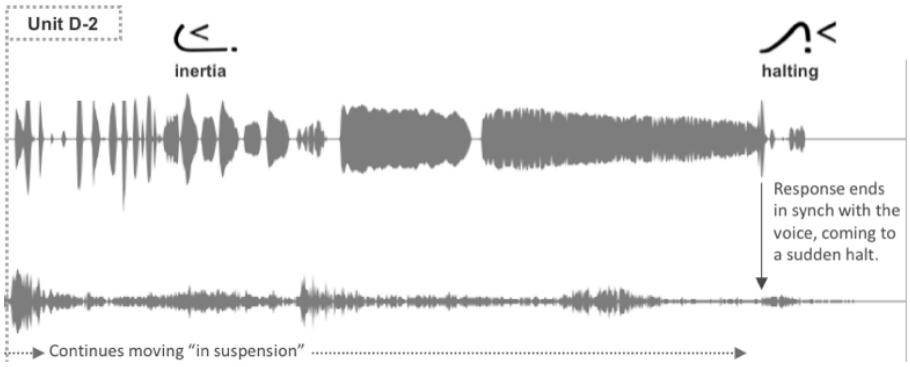

Figure 4.52 : Section D, Unit D-2, Difference Response.

In the following two figures, Figure 4.53 and Figure 4.54, the graphical analysis of similarity and difference responses of Section D are provided. Listen to the corresponding Sound example 4.53 and Sound example 4.54.

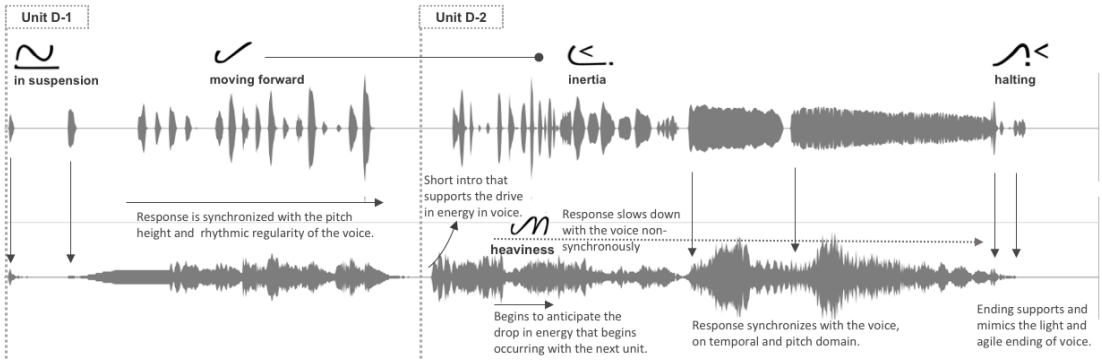

Figure 4.53 : Quest(ion)s: Section D, Similarity Response.

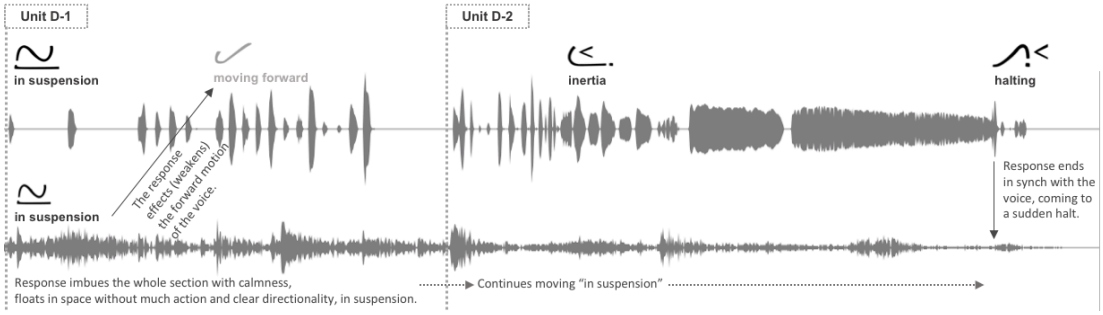

Figure 4.54 : Quest(ion)s: Section D, Difference Response.

This brings us to the end of the analysis and response section of the com-position Quest(ion)s. Next, I will introduce the next com-position: S-wallow-ING. I will be discussing my reflections and conclusions of both the com-positions within the next and final chapter; for these evaluations and conclusions, see section "Conclusions" (Chapter 5.1).

Next, with the information I have gleaned through my RC practice with Sumru, I set out to visit another agent: a duo of swallows. Within the next com-posed work, there is a different species relation which brings about a new set of parameters in the engagement process.

4.3 S-wallow-ING: Com-posing with a Swallow Duo

With the musical example I introduce in this section, I continue com-posing with the acousmatic voice; but this time, away from the human voice and together with the voices of two swallows chattering their dawn chorus.

In thinking about agents to collaborate with, earlier in the research, I have ruled out working with birdsong and the reason for this was twofold. One was due to the fact that the birdsongs near where I live, sing with pitch-based material; and as explained earlier, the interest of my practice within the confines of this dissertation was initially based in a sound-based musical approach. The second reason was about the historical heritage of the use of birdsong within musical context; birds have been a great source of inspiration for musicians throughout centuries. There has been, and still are, a large variety of sonic studies conducted around understanding, notating and musicking with them[35]. Aware of the abundance of information in the field of music that have existed throughout history and is still developed and produced today, I was aware that the bird song carries much weight within the context of music. And I thought, maybe it is not one I want to be carrying in this particular research.

However, one day as I witnessed a dawn chorus of two swallows through an unexpected encounter, my initial reflex underwent a questioning and a change. As I witnessed the birdsong of the swallows, I found myself wanting to join-in, and therefore speculating on the possibility of "going visiting" their sonic world through the RC practice. The encounter I had with them triggered a series of questions as to why I have ruled these agents out, and that this reason in itself could be one of the reasons I should in fact "go visiting" this particular other. As I felt provoked by their sound world, I began thinking how an experimentation in reading their semi pitch-based songs through the RC practice (based on a sound-based approach that relies on

[35] In the field of composition, many composers have worked with birdsong in numerous approaches and practices, a notable few among many are Olivier Messiaen, Jonathan Harvey, David Rothenberg, R. Murray Schafer, John Luther Adams, François-Bernard Mâche, Hildegard Westerkamp, Laurie Anderson. Among practices that are music-based, there is a variety of fields that are gaining prominence together with the ecological movements happening around the globe, studying sound communication of animals and the aesthetic use of these sounds in the context of music. Today some prominent fields are Zoomusicology (being developed by François-Bernard Mâche (1992), Hollis Taylor and Dario Martinelli); and Biomusic which, is a much broader field being explored by many scholars, in which Patricia Gray (2001) produces prominent work.

energy-motion trajectories of the TSUs) could affect the relational experience and results. The tools at hand (spectromorphological descriptions and TSUs), could very well afford and allow an inclusive ground, to describe and engage with their sounds.

As I began mingling with these questions and possibilities, the perspectives that opened up pushed me to think and move beyond my own scripts, and to explore within an experimental field, what the yet unfathomable might have in store to offer. Birds were not who I expected to visit, nor what I anticipated either, but as I found myself so intrigued by what began opening up by going against the grain of my own prescriptions, I decided to venture off to go visit them. And of course, as a practitioner with an objective for a "polite" practice, I began looking for questions that might hold value for a response-able com-position practice. As Haraway states:

> Asking questions comes to mean both asking what another finds intriguing and also how learning to engage that changes everybody in unforeseeable ways. Good questions come only to a polite inquirer… With good questions, even or especially mistakes and misunderstandings can become interesting. This is not so much a question of manners, but of epistemology and ontology, and of method alert to off-the-beaten-path practices. (Haraway, 2016, p.127)

Embracing working through a diverse, dynamic and complex system of RC practice, in pursuit of good questions, I found that the challenge lies in finding good-enough place for the complexity of relation to arise. And of course, asking certain types of questions poses certain types of answers, holding within them the risk to diverge from reality. These divergences, I embraced through my practice; let me explain how and why.

In the previous com-position called Quest(ion)s, Sumru and I were same species, and so, one way or another, we had a common ground in which to make and understand sound i.e. we had a common understanding of music. On top of this, we were both guided by TSUs in making and listening sounds. In my engagement with the two swallows, we do not have a common understanding of meanings detached to sound, nor, have a common tool in which to relate to one another; they sing in a world "without me". So, my initial reflex was to read and learn about these birds that I have recorded, as much as I can, before further engaging with them. However, as I was practicing moving beyond my habitual, initial thinking, I started questioning what

would happen if I began from the other end. What would happen if I do not study them prior to my engagement? There is a vast sea of possibilities of how to start engaging, and to materialize such practice; each valuable in their own modality, offering different modes and strategies of engagement.

And so, with this specific com-position practice, I chose to start with the relational zone in which I don't have access to the established defined truths about these birds to start with. This in return, allowed me to move in an exploratory, playful and experimental practice, where I aim to generate and reveal as much as I can, about what might be known, and what might emerge through our socio-sonic engagement. This means that, in the practice, the self is always aware that listening involves inventing. The inventions in the end, may or may not contribute to something, someone or the resulting music, but will surely change the self who undergoes such process.

By speculating, and fabulating what these small birds might be doing, thinking and feeling, I affirm the risk of diverging from reality, and that understandings and misunderstandings might arise from within my practice; and with this com-position, more so than the previous one, as there is an inter-species interpretation. I hold these divergences and misunderstandings valuable as they might bring new questions that could lead to new and interesting insights about the process; expanding epistemological possibilities that might not be there otherwise. And most importantly, in doing so, I try and make my process explicitly available for others, so that it is traceable, and carries potentiality to open up to further dialog. So, as I take up the challenge, I began zigzagging within and off various scripts, generating speculations and fabulations through experimental play in com-posing with these birds.

In the specificity of swallow-human joining, the main challenge for the self is to find ways to cultivate response-able joining-in with a non-human sounding body; and to do this from perspectives of inside and an (imagined) outside position of a human body. And so, I begin asking: How do I move past the learnt ape-brain vs. bird-brain dichotomies? How can I join-in as a polite inquirer? How do I render myself as well as these swallows capable in our sounding together? Starting with such questions, I kept adding questions, perspectives, versions and began generating speculations and exploring how my practice responds to these. Generating stories, questions and functions in my socio-sonic engagement, contributed to forming rhizomic ways of doing, that created fruitful grounds for the RC practice. Next let us briefly look into

the autoethnographic notes gleaned from the first stage of my engagement with the swallows, i.e. the process of inviting and joining-in.

4.3.1 Introductory autoethnographic notes, storying

I went to Balıkesir, Edincik for a three-day visit in May 2021. And on three of the nights I have stayed there, I was woken up by a duo of swallows in around 4:00 AM. As I was charmed by their song, I got up, and without scaring them off, was able to record their duet.

As the swallows were singing their importance, they heard me opening the window less than three meters away from them, and saw me seeing them, yet did not fly away. Although they stopped singing for a while when I opened the window, after some time, they continued. I cannot help but think that hearing and seeing me might have affected the way they sound and behave. From that angle, can I say that their singing included partly a response to me? Or does this type of thinking also fall into a trap of anthropocentric thinking? Moving past these questions, and coining myself as a witness (that was affected, and may or not have had an effect on the swallows), I consider that all three of us, less than three-meter proximity; did something, and we did it with the awareness of each other.

In working with the swallows, I decided to start with a rather unusual question that would guide my analysis; a question that is complex enough, one that I find interesting and intriguing, and might carry the potentiality to break my habitual engagement strategies. I began with the question: What matters to these swallows? More specifically, what might matter to these two swallows in front of my window? The first day of my visit, I saw a nest on the inner wall of the house where I stayed, where two swallows were carrying food and feeding the little chicks. See this nest and chicks in Figure 4.55 given below (Photo, courtesy of Gökhan Tan).

Figure 4.55 : Swallow Nest and Chicks.

Prior to my engagement with the swallows, I already knew a bit of information about them. I knew that barn swallows take care of the nest as a couple, that both the sexes sing the same birdsongs, and they are usually situated near the nest at night to protect the chicks to defend their territory and to ward off any rival males that might be interested in moving in the nest. The window of the room I stayed in was on the second floor, and it was positioned right above the inner wall of the nest; I was very well situated in their territory. These two swallows showed up singing in front of my window all three nights I stayed over. They might very well be the parent swallows guarding the nest. And so, my storying began…

I recall the depth of the space and the drone deep hum of the sea in the background. These features are subtly apparent in the recording. The first night, I only witnessed their singing and did not record. The second night, I placed my recording machine (a Zoom H6) next to my bed, so that I could immediately begin recording if they sang again, and they did; both the second and the third night. I recorded from a static position from my window, because an intra-active recording was not possible in that, my movements would have scared them; and I didn't want to scare them.

I ended up taking two recordings, one on day two and another on day three; the first, recording 10:46 in duration and the other 15:13. You may see the proximity and position of the recorder to the birds in the following Figure 4.56.

Figure 4.56 : My Proximity to and Recording process with the Swallows.

Although not visually present in the photograph given above in Figure 4.56, the second swallow is situated on the right of the frame (as I didn't want to scare them, I didn't move much, so was not able to include the second bird in the frame). The sound recording has a clear stereophonic sound image, where each bird is positioned in a panoramic sound location.

I chose to respond with the recording of day one, because —as I interpret it—, it holds a strong sense of developmental narrative within itself so much so that I am pulled towards it musically; and I wanted to join-in with that narrative. The next section explains how I began com-posing with this recording.

4.3.2 S-wallow-ING autoethnographic notes: Foreshortening response and aural analysis sketch

As mentioned above, it is important for the RC practice to let the other be "as is", with little intervention as possible. However, the recording I decided to work with, was 10:46 in duration, and in order to do a focused and detailed work within the time frame of this dissertation, I needed to work with a shorter segment of the recording. In doing so, I wanted to work in a deconstructive way rather than a destructive one; one that would not go against the grain of a "polite" practice.

As I address the aural engagement process as a valid and valuable field for information throughout the RC practice, relying on my listening in the aural analysis in making a shortened version of the recording, I decided to depend on my listening and memory as well. The ear, listening and memory, are already mediums of recording; they are storage devices that allow one to trace their listening, and engagement. By relying on

my ear, listening and memory, the process of shortening the recording itself could very well be another response stage in my practice.

And so, I ventured off to edit out some segments out of the recording, by applying a technique that is used in soundscape studies called, foreshortening. Foreshortening is selecting relevant parts of recordings, and transparently editing and mixing them together. Taking in hand the fact that no one truly remembers how sound events unfold in minute exactitude of time, and that our listening does a natural form of shortening through our concentration on what is most striking, interesting, memorable etc., I trace the initial effects the swallows have on me, by following my own memory and listening.

After several listenings, I made the following memory sketch, tracing the overall form and jotting down some keywords that pinpoint some behavioral highlights in my listening. The figure given below is a bit flat, and doesn't really capture the energy and experience of my listening, however was enough for me to use it as a means to foreshorten the recording. See, the Figure 4.57 provided in the following page.

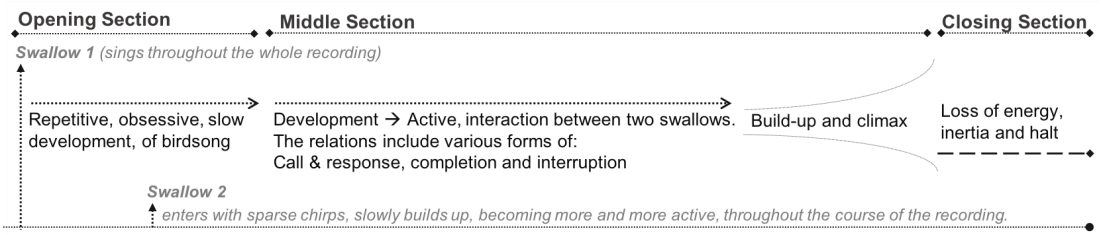

Figure 4.57 : S-wallow-ING, First Impression Memory Notes for Foreshortening.

I followed the clear developmental narrative of the birdsong that stood out in my listening within the recording, and I reassembled the recording relying on my impressions, and memory. I kept the beginning and end of the recording intact and edited the middle. The sequential order of the events was not scrambled. I removed some segments in between, and ended up holding the phrases that stood out in my initial listening/memory response and are functionally striking for me, within the form and narrative. Therefore, with this com-position —differently from Quest(ion)s— the com-position process already began before the aural analysis response stage; in other words, the com-position begins with a foreshortening response stage.

With the foreshortening process, the recording was now 3'34 in length. Apart from this foreshortening editing, I did not use any other processing of the sounds of the

birds, except applying basic noise reduction. Next, I began the aural analysis sketch, where I jot down layers of my first few listenings, taking notes without any guiding tools, without external interruptions. After these initial notes, I listen to the recording again with the companionship of TSUs, and keep on working on the sketch, sometimes accumulatively adding, and sometimes erasing and changing previous notes. Throughout the process, as I listen into more details, I begin transcribing what I hear in a bit more detailed way. Just as in the previous musical example of Quest(ion)s, I am not interested in expressing an absolute transcription with perfect accuracy, producing a fixed portrait of the swallows; my process is about exploring what a closer listening/knowing, reveals in terms of the relational traces and affects.

How I listened to what I heard, and the effects of my listening on the interpretative transcription and analysis could be traced in the following Figure 4.58, given in the next page. To see finer details of this sketch, view the higher-resolution image Analysis sketch 4.58.

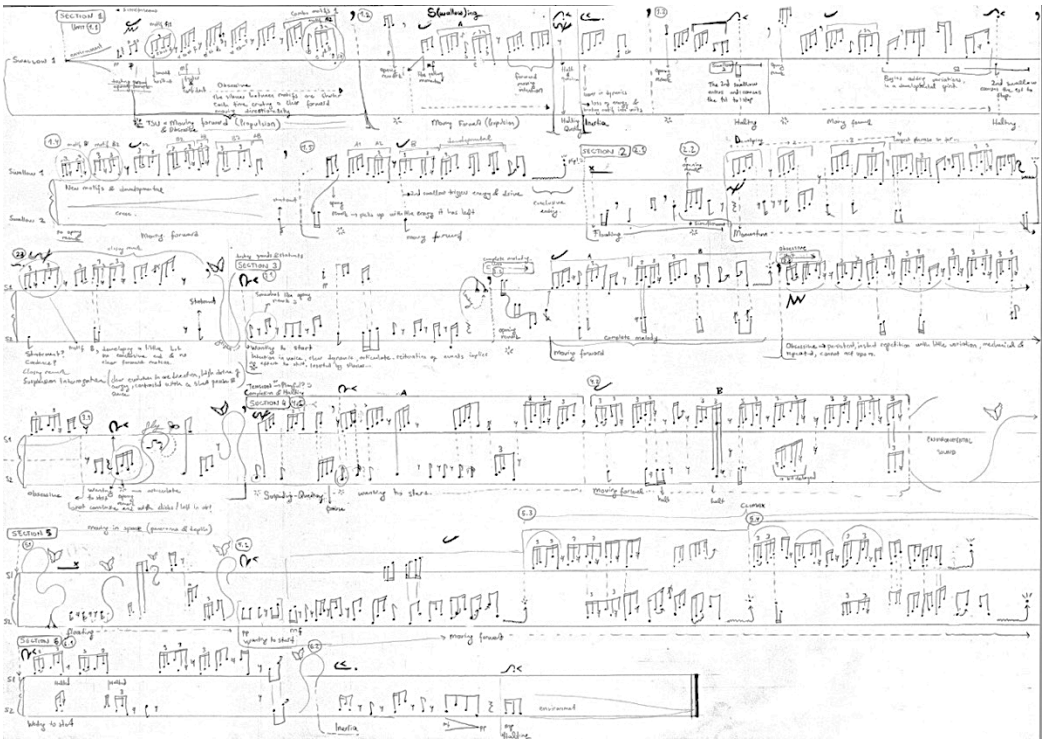

Figure 4.58 : Swallows, Sketch of Aural Analysis.

The sketch above has two single-line staffs that represent the songs of the two swallows. Different from the first sketch, the birds sing in a semi-pitch-based and motivic approach, therefore I notate these in the transcription by approximate rhythmic content and relative pitch height. On the top, there is the transcription of what is heard,

and below there are various descriptions of them, describing movements, behaviors, TSUs, along with some structural divisions and marks. Next, taking these initial sketches, I move into the tactile and motion-based practice stage.

4.3.3 S-wallow-ING autoethnographic notes: Performance notes

Having bird voice in the sound domain —although very different from human voice— is no different in imbuing the sonic environment with its strong sonic embodied presence. It rises to the surface of a musical piece the moment it enters the sound domain, triggering immediate responses in the listener.

This presence was even more strengthened, as the swallows' sonic expressions were very different from mine: The swallows' singing comprised of monochromatic timbral qualities, semi-pitch-based sound material, motivic and repetitive approach that use a limited vocabulary of sonic material. This contrasted my use of wide variety of sound types, with variety of timbral qualities, my rare use of repetition (when used, not using continuous direct repetition, as the birds do), together with mostly the use of non-motivic sound events. Our immediate differences rendered-capable holding the birdsong on the surface (or at least in one of the surfaces) within our com-positional habitat. This aspect —just as in the previous com-position, Quest(ion)s—, made it difficult for me to overpower the voices of the swallows; facilitating a ground for me to pursue a "polite" practice.

One element that opened up a window for me in to bridging our very different sonic approaches of expression, and in finding contact zones of relation, was the sonic relations the two swallows had with one another. Different from the previous com-position with Sumru, this time, I was responding with two agents, which brought a new dynamic into the relational plane. The birds sang with one another (in a world without me), expressing various sonic relations. Their relations with each another, inspired, informed and guided me in responding with them. I imitated and diverged from various patterns of sonic behaviors they have with one other; some of which include call-response, interruption, continuation, completion and development.

On the other hand, I pay careful attention to the frequency range of the songs throughout the song of these two swallows. As the acoustic niche hypothesis (ANH) goes, no two species will make sound at the same overlapping bandwidth of frequencies. The reason for this is that in an ecosystem that is a shared habitat, species

have their own acoustic channel for communication and expression. This avoids clash and competition across species. So, recognizing this as a human that is interested in sharing a sonic habitat with swallows, I play around with this notion within my responses: I blend-in or stand out of the frequency bandwidth of the birds, depending the function and behavior of my response.

The frequency range of these swallows' chirps are focused between the bandwidth of 1700 Hz (1760 Hz is A6), and 4500 Hz (4186 Hz is C8 which is the highest note on the piano). The main concentration is around mid 3 kHz (3520 Hz is A7) as could be seen in the spectrogram given below in Figure 4.59. The only other frequency band of concentrations are where the noise-based clicking sounds occur. These clicks occur in two concentrations of bandwidths: they occur simultaneously between 4-7 kHz and 10-13 kHz bandwidth. The first of the clicking sound event occurs just before minute one in the recording, which could be clearly observed within the spectrogram below, as the 10-13 kHz concentration is the highest frequency band concentration within the whole recording. See spectrogram view of the swallow song in the following Figure, 4.59.

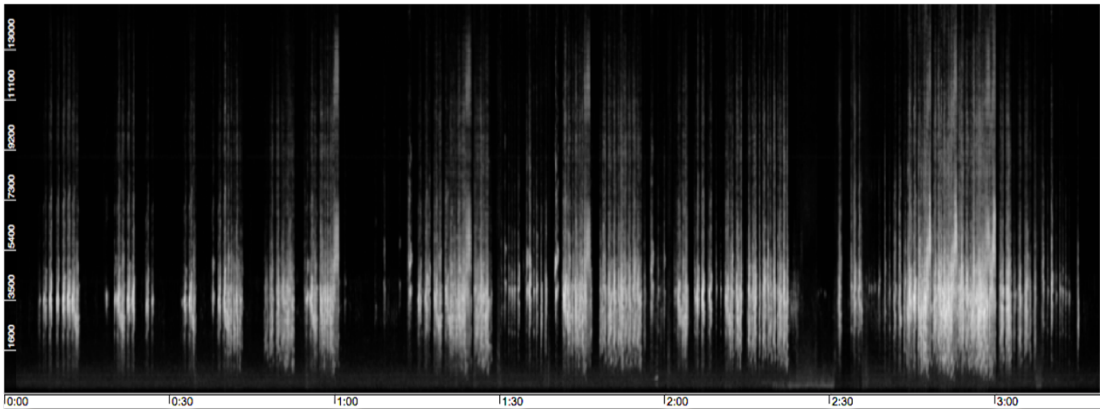

Figure 4.59 : Duo Swallow's Dawn Song; Spectrogram.

These focused group of concentrated and repeating frequencies are quite contrasting to the previous com-position, where Sumru had a wide range of sound types using various types of noise vocalizations, producing a large variety of spectral content with no repeating bandwidths of concentrated frequencies.

Although Sumru and Swallows' two sonic worlds are very different on numerous levels —including sound, structure and meaning making mechanisms—, I work with the same set of concepts, things (instrument), tools and processes. Next, let us move

into the section where the analyses and responses of S-wallow-ING are explained and demonstrated together with the sonic results.

4.3.4 S-wallow-ING analysis and response

In this section, I begin by describing the sound types, motifs, phrase structures and general formal aspects of the swallows' dawn song. Then I explain and demonstrate detailed analyses and responses together with their sonic results.

The two swallows' dawn songs use what could be called a minimal vocal vocabulary; they consist mainly of sound types that are tone-based chirps, together with some noise elements. These chirps are short sounds which are basically impulse attacks, with articulate onsets followed by immediate, soft terminations. Their chirps comprise semi-pitch-based material that are not fixed, grid-based, well-tempered, intervallic pitches. Rather, the chirps are mostly made of complex tones; they have more than one frequency component, where the fundamental is not always clearly spotted by the ear. The swallows' song has near-monolithic timbral qualities, consisting mostly of smooth timbres, rather than gritty and rough timbral qualities. The two swallows' dawn song that I witnessed, include only one type of noise vocalization that occurs as a group of iterative rapid clicking sounds, which are mainly attack impulses with transient and articulate onsets and immediate terminations. At the end of each iterative sound event, there is always a single chirp that glides upwards in pitch.

Aside from vocalizations, the birds perform short flights, moving from one branch to the other. These wing flaps are important sound events for my analysis, as they highlight a different form of bodily presence of swallows. These wing flaps could be described as iterative sounds with soft onset and terminations and highlight spatial movement of the agents. With some flights, we end up with a different spatial replacement of the birds, changing the panoramic sound image.

Throughout the analysis, the first swallow that began singing is called swallow 1, and the second respectively, swallow 2. Swallow 1 is positioned at mid-left of the panorama and swallow 2 is positioned on the hard right. Along with some flights they do, their spatial position changes, however they always come back to the position we hear at the beginning of the recording. Their movements are easily trackable, making it easily distinguishable for the listener to know which bird is which.

I determined six motifs in their songs, five semi-pitch-based and rhythmically characteristic motifs, and a clicking iterative noise-based sound event, ending with an upward-gliding chirp. In the formal structure, there are two main phrase structures: phrase A and B. Each phrase comprises the same group of motifs, with some variations; at times new motivic material are introduced. Motif A1 and A2 are found within phrase A, motif B1, B2 and B3 are within phrase B, and motif AB is used as a closing comment, functioning as a completion of the motifs used either in A or B.

The spectral centroid of the pitch material of the motifs always move and change minutely; however, the overall pitch height is articulated and traceable. The rhythmic structure also bends and moves in miniscule variations. Consequently, the motifs, are not fixed, they do not occur exactly the same each time; they go under variations and a variety of mutations. Accordingly, the six categories of motifs that are presented in the Figure 4.60 given in the following page, are approximations of pitch height and rhythmic characteristics that vary minutely throughout the recording; and therefore, should be read accordingly.

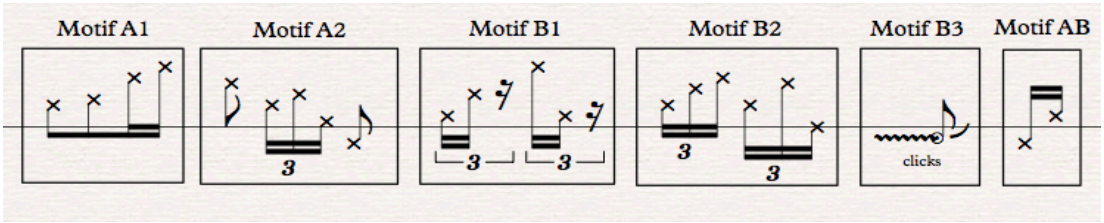

Figure 4.60 : Main Motifs in Swallows' Songs.

In order to aid the viewing and reading process (both in visual analyses as well as written text,), with the following sections, I use abbreviation for the word motif, when indicating motif types; for example, MA1 is used to indicate Motif A1.

Let us continue by looking into the phrase structures. In my analysis there are two phrases, I call phrase A and phrase B. Within phrase A, we usually find quite a lot of repetition of motif A1. Motif A2 always follows motif A1; and it functions as a completion for the phrase. Phrase A motifs, usually appear in the similar form, undergoing very little variation. This characteristic contrast phrase B material. In phrase B, motif B1 and B2 might change orders and undergo more variations in rhythmic structure and pitch height. Phrase B is usually in a developmental spirit, and at times new motifs (non-B phrase motifs) are used. Motif B3 always comes right after motifs B1 and B2, and functions to end the phrase. On top of this, the motif B3 usually

occurs when there is a complete sentence: phrase A followed by phrase B. And finally, motif AB comes immediately after either one of the motifs of A or B, usually bringing the phrase to a halt.

Aside from these motifs, there are short chirps in sections of pause in between phrases, usually sung just before the phrases. I call these "opening remarks" as they function to provide introduction to the phrases. These opening remarks are characterized by short vocalizations that range from a single chirp, up to a group of chirps (maximum five chirps); they are varied in pitch height and rhythmic grouping and differ almost at each occurrence. Opening remarks are abbreviated as "o.r." within the graphical representations of analysis as to avoid visual crowding and to create visual ease.

Although the birdsong is built on a motivic repetitive basis, there are always levels of variations within motifs and construction of phrases. The variations take place as 1) slight variations in motifs, where the exactitude of spectral centroids, and rhythmic characteristics change; 2) the number of repetitions of motifs, and the order of combination of motifs change in each and every phrase, 3) there may, or not be an opening remark before the phrase. When opening remarks occur, they are always different from one another. And finally, 4) new sound events and motifs may be inserted between motifs within phrase structures.

Analyzing the swallow's birdsong with companion TSUs function much differently than that of the sound-based, non-repetitive com-position Quest(ion)s. Compared to Sumru's singing, the swallow's song has a limited vocabulary that is motif-based and repetitive. But their motifs appear with new combinations in each phrase: they are sung in different dynamic levels, forming different phrase lengths and structures, different combinations of polyphonic behavior etc. Therefore, in my analysis with TSUs, I listen into these differences, and trace how the motifs are connected and linked together, creating overall movements and trajectories; and I focus on possible semantic meanings they weave together. As a result, in S-wallow-ING, the interpretation of TSUs produce a more abstracted and metaphorical form of interpretation than that of Quest(ion)s.

In the overall formal level, I divide S-wallow-ING into six main sections. For the sake of clarity and articulation, each section is explained by being further divided into

smaller units. The overall analysis marking main sections and main TSUs of the overall form is shown in the following Figure, 4.61; listen to Sound example 4.61.

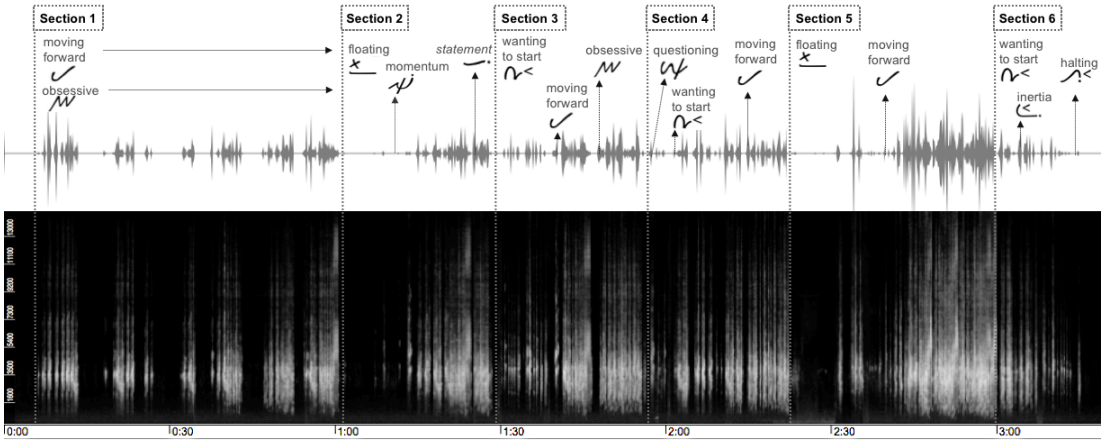

Figure 4.61 : Duo Swallow's Dawn Song; General Formal Analysis.

Apparent from the sonogram above, in the beginning of the recording, there is a generous use of silence between the phrase-length events. The early chirps are sung low in dynamics ranging from *pp* to *mf*. However, as the recording goes on, the silences become shorter and occur more seldomly, and the motifs are sung in a developmental manner with variations, where the two bird's songs develop, get more elaborate and rise in dynamics. This development section leads to the climax of the song, in second half of section five. The climax is the densest section throughout the song expressing polyphonic motivic complexity, along with the highest dynamic level, going all the way up to *ff*.

In the overall formal development of the swallows' dawn song, there is a clear developmental narrative that moves forward throughout the song; which could be described as the TSU, "moving forward". Another possibility of the overall characteristic of the song could be described as "obsession" (TSU) as there is a persistent repetition of motifs. Interpreting the song from an "obsessive" stance, one can observe that although motifs undergo slight variations, creating a renewed form of energy, these minute variations do not color the overall listening experience, as there is an almost-mechanical process of constant repetition.

Next, the swallow's song is unpacked within sections and their smaller units. Unlike the com-position Quest(ion)s, these sections are not described with letter characters. The letters are used for phrase descriptions within this analysis; and as not to confuse descriptive indicators, the sections and units are simply coined by numerical order.

In the aural analysis phase, I continue to trace the intrinsically descriptive terminology along with extrinsic fabulative threads of sounds. However, the tables given at beginning of each unit, presented within this analysis are different from the previous com-position. The reason for this is, 1) the sound types of swallows are semi-monolithic, therefore describing the sound types do not provide functional information. Consequently, instead of the "sound type" column, I use a "sound event" column that describes motifs and other utterances, which help listener to understand and track these groups of chirps. 2) In the second column, instead of "Energy/Motion Trajectories and Extrinsic Notes" column, I use "TSU". As mentioned above, in S-wallow-ING, the TSU interpretations use a more abstracted form of interpretation, therefore, extrinsic notes are not as rich as in the sound-based approach of Quest(ion)s. The description of TSU, along with brief extrinsic notes, are sufficient enough to trace the motion, behavior and meaning structures for the listener.

In the following sections, the swallows' song is unpacked within sub-sections called units. Each unit is described within three instalments: analysis of the swallows' song, analysis of similarity response, and the analysis of difference response. These are explained and illustrated with picture analysis files that provide detailed information, and video analysis files that demonstrate sound together with a more general analysis; both allowing the viewer/listener to trace and follow the com-positional process.

4.3.4.1 S-wallow-ING: Section 1

Section 1, occurs between 0:00 to 1:07, and comprises five units. Throughout the section, there is a generous amount of silence and spaciousness. Within section 1, mainly Swallow 1 is heard. Swallow 2 appears in unit 1.3, and begins by singing very seldomly, and low in dynamics, almost in a hesitant manner.

Almost all the units, with the exception of unit 1.4, have what I coined an "opening remark". These opening remarks are short utterances right before the motivic elements of the phrases. They range from a single chirp to a four-note sound event, they are varied and differ in each of the phrases. In some figures, due to the lack of space and clarity of visual information, they are abbreviated respectively, as "o.r.". For analysis of Section 1, See Figure 4.62 below; listen to Sound example 4.62.

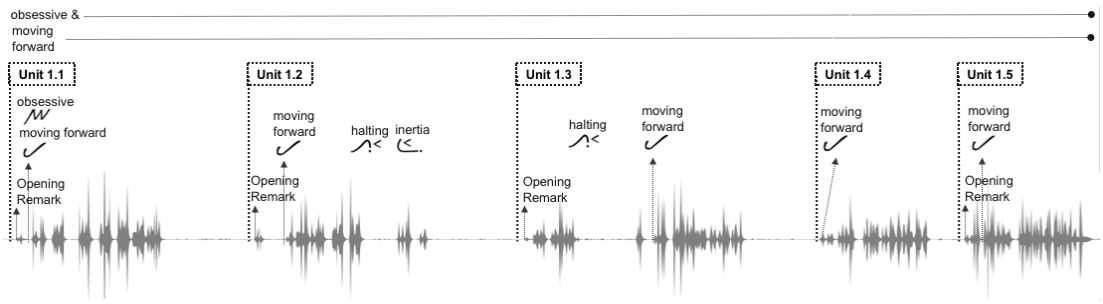

Figure 4.62 : Duo Swallow's Dawn Song; Section 1 Analysis.

The following section unpacks the five units of Section 1, by indicating sound types, along with some extrinsic notes and energy/motion trajectories.

Unit 1.1

Below find the table that provides the main sound events along with the TSUs of the swallow song, sung within unit 1.1. The following structure of the presentation of the swallow songs' analysis will be repeated throughout the chapter. Each unit's table will be given below the unit number, followed by explanations of each unit sung by swallows, and finally, the visual graphical analysis will be provided. After the analysis of the swallow song has been presented, the responses will be explained and presented with their respective graphical analysis.

Table 4.18 : S-wallow-ING, Unit 1.1.

SWALLOW VOICE	
Sound Events	**TSUs**
Opening remark (abbreviated as o.r.)	Simultaneously: Obsessive & Moving Forward
Motifs A1 & A2 (abb. MA1 & MA2)	---

Swallow Unit 1.1: The unit begins with an opening remark, a one-note sound event with very low dynamics *ppp*. Right after two fragmented chirps, Motif A1 is uttered. The opening remark is low in dynamics. The swallow continues with a mechanical and repetitive use of MA1 ("Obsessive"), with a rise of dynamics and a confident directionality. Throughout the first unit, what we may call an obsessive repetition of motif A1 occurs. However, each time the motif occurs, the silences between the motifs are shorter. Because the silences between motifs decrease, where a form of temporal compression occurs, and a rise in dynamics, there is a clear directionality, a purposefully progressing motion and a push forward ("Moving forward"). The unit comes to a closure with motif A2 which provides a form of resolution to the tension

created by the push forward. Therefore, the unit could be coined as either “obsessive”, and/or “moving forward” TSU. See swallow analysis, in Figure 4.63 and listen Sound example 4.63.

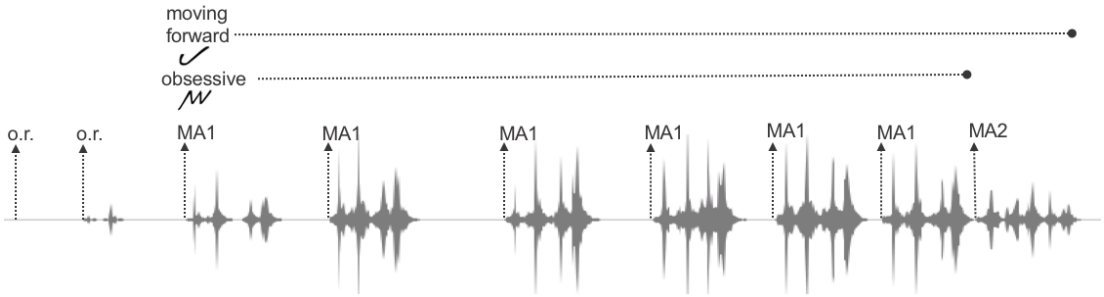

Figure 4.63 : Swallow Duo Unit 1.1 Analysis.

Similarity Response Unit 1.1: The similarity response begins after the opening remark of the swallow, together with the first appearance of motif A1; with an opening remark of its own, as a one-note sound event. With the first repetition of MA1, the response simultaneously doubles the MA1 of the swallow, in imitation. And along with the next repetition, as a directionality in the swallows’ singing emerge, the similarity response responds with a supporting sound event. Here the response sets an iterative sound event into motion along with a single sine tone-like sound that goes up in pitch pointing to the directionality and motion forward in the swallows singing.

The similarity response is not busy in terms of sound events, because it aims to open up a space for the swallow which is heard by the listener for the first time, as well as drawing attention to the development in the singing of the swallow to be clearly heard. This sound event ends with the swallows concluding MA2. The response doesn’t seem to get enough of the “movement forward”, and by means of an iterative sound event with rise in dynamics (clearly articulating directionality) together with a cluster of tones, leads into a motivic sound event that ends the section. See similarity response in Figure 4.64 and listen Sound example 4.64.

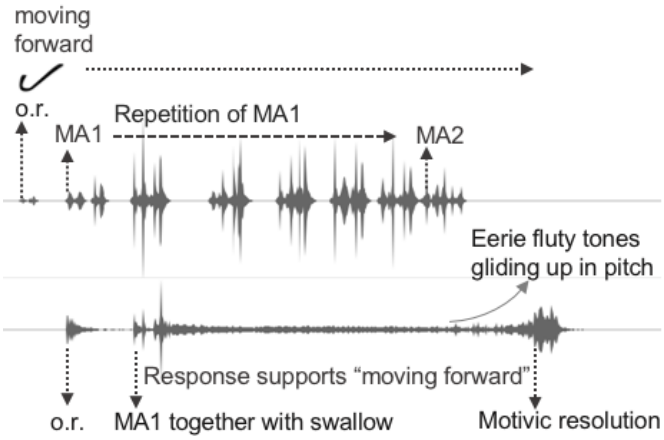

Figure 4.64 : Section 1, Unit 1.1, Similarity Response.

Difference Response Unit 1.1: Panoramically speaking, the two swallows are almost always stationary during the segment of the recording. In my response, I wanted to start with movement where sounds emerge in different panoramic positions, in contrast to the stable spatial position of birds. Temporally, I wanted to move slower; especially than that of the note level activity of the birds. And finally, I wanted to move with intention, direction and non-repetitive movements.

Here, in the back of my mind, I had an urge to express various movements that occur during flight within a swarming of birds, and —as I am interested in exploring "what might the other be like"— wanted to carry this movement of flight into my abstracted interpretation. I sounded waves of swooshes by scraping the metal board of the piano with various objects, together with rubbing of wooden sticks that create tones. All sounds occurred through rising and falling dynamics that appear and disappear, moving within the panorama. My arms move back and forth (horizontally), up and down during these swooshes (vertically), in pursuit of imagining and abstracting birdness, through wing movements together with motions that occur within the act of swarming.

During the unit, the frequency content of these sound events is mainly based in bass and lower midrange, as to be clearly separate from that of the swallows' singing range (with one exception, a single chirp-like, fluty high range frequency note). These whooshes consist mainly of noise material, however within some of these whooshes, various pitched material emerges; they appear as if they are whispered, from within the noisy content of waves. Therefore, the response beings by contrasting the sound types, behavior and temporal unfolding of the song of the swallow.

The response consists of layered, non-repetitive noisy waves that have longer sound events than that of the motifs of the swallow. However, the response synchronizes temporally with some of the sound events of the swallow, supporting the acceleration of movement forward. The response also contrasts the swallow song by not being as bluntly articulate as the swallow, and somewhat leaving a level of unpredictability and mystery.

With the whooshes, we could gather a clear presence of agency (other than of the birds). These sounds are not situated within the background layer of the music, as the movements are highly intentional and move within panorama. Along with the agency of these whooshes, the single fluty chirp-like tone might be interpreted as another layer within the difference response. See difference response in Figure 4.65 and listen Sound example 4.65.

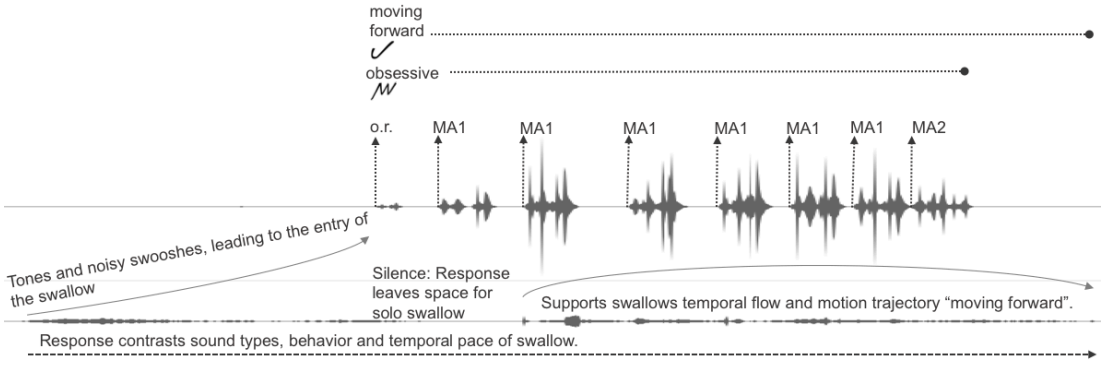

Figure 4.65 : Section 1, Unit 1.1, Difference Response.

Unit 1.2

Table 4.19 : S-wallow-ING, Unit 1.2.

SWALLOW VOICE	
Sound Events	**TSUs**
Two opening remarks	Moving forward
Motifs A1 & A2	Suspending-questioning
---	Inertia

Swallow Unit 1.2: The swallow begins with two opening remarks, both low in dynamics and each consisting of three chirps. Right after the second opening remark —which somewhat functions to gather momentum—, the swallow sings confidently and high in dynamics, with a clear directionality, "moving forward", voicing both of the A motifs (MA1 and MA2) with a conclusive end to the gesture.

Right after, the swallow picks up the momentum once again, with MA1, and immediately repeats it as if getting ready to gain more momentum, however after the first repetition immediately comes to a stop, and leaves a "suspending-questioning" feeling in the air.

After the pause, we hear MA1 again with low dynamics, and after a short pause, just the first two-chirp-fragment of MA1, indicating a loss of energy, an "inertia", falling into silence. See swallow analysis, in Figure 4.66 and listen Sound example 4.66.

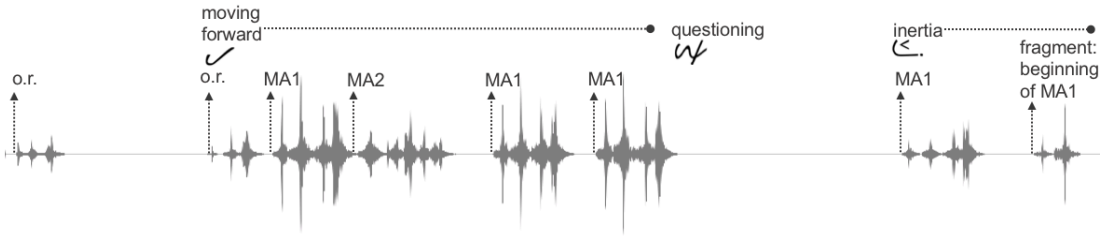

Figure 4.66 : Swallow Duo Unit 1.2 Analysis.

Similarity Response Unit 1.2: The opening remark of the swallow causes a single sound event response from the similarity response, followed by a silence spanning until the second opening remark of the swallow. The response continues with MA1, accompanying the swallow through the energy motion until the "suspending-questioning". The response responds by synchronizing with pitch, temporal and rhythmic material with the swallow song, and imitation it in the final MA1. The response stops together with the swallow, leaving a resonance of tones in the air during the silence. After the silence, the response begins together with the swallow, and supports the "inertia", as it drops in dynamics and keeps the non-resolved character of the unit intact. See similarity response in Figure 4.67 and listen Sound example 4.67.

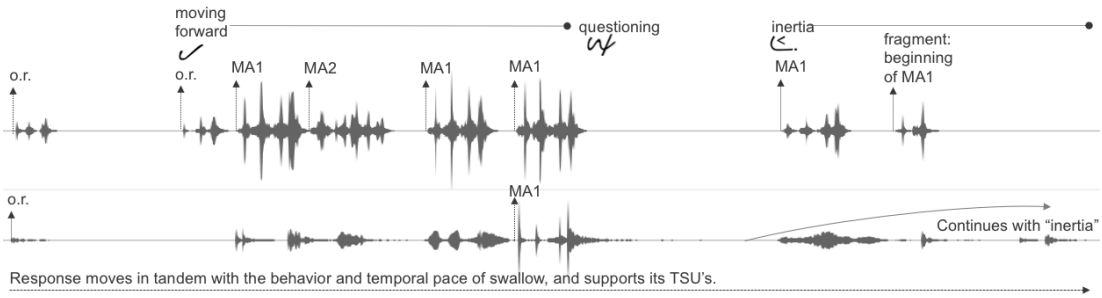

Figure 4.67 : Section 1, Unit 1.2, Similarity Response.

Difference Response Unit 1.2: The response continues with both noise and pitch-based swooshes. Along with these, it introduces occasional plucks with clear pitch content as well as other noise-based impulse attacks that are weaved with the

whooshes. All outline and support the motion trajectory of the swallow's song. In the difference response, I found that the responses I initially had within my rehearsals, were mostly overpowering the swallow song, as there was too much information. And because I wanted to keep the swallow song mostly within the surface of the music, I found that synchronizing with various points in gestures and motifs, allows to bring the attention back to the swallow, and weave the two agents together, within a more equal ground. So, the response follows the sound event of the swallow and halts with it, and later supports the "inertia". However, the response ends with an ascending, upward gliding pitch that creates expectation.

The high-pitched fluty tones appear two times with single chirp-like appearances throughout the unit. The mid and low range pitch content becomes a bit more intentional and pronounced and begins creating small motifs. See difference response in Figure 4.68 and listen Sound example 4.68.

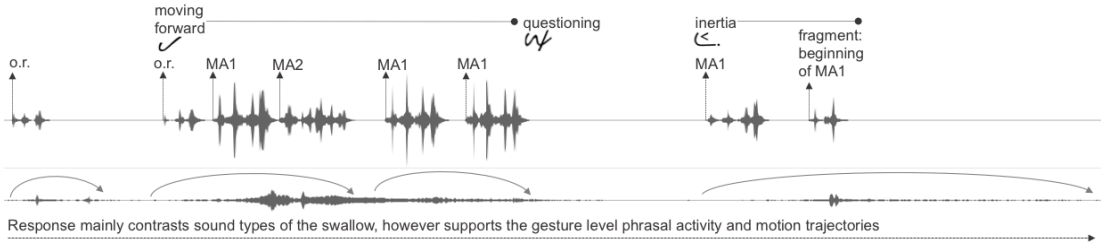

Figure 4.68 : Section 1, Unit 1.2, Difference Response.

Unit 1.3

Table 4.20 : S-wallow-ING, Unit 1.3.

SWALLOW VOICE	
Sound Events	**TSUs**
Opening remark	Moving forward
Motifs A1, A2 & AB	Halting

Swallow Unit 1.3: The unit opens with a one-chirp, opening remark and comprises two phraselets. Swallow sings MA1, and after an immediate repetition, follows MA2; the listener gathers a feeling of gaining momentum, and a sense of "moving forward". However, the entry of the second swallow causes the first swallow to suddenly come to a "halt".

After a pause of silence, swallow 1 begins anew with an opening remark of phraselet two, followed by motifs of A. MA1 repeats and closes with MA2 and MAB, which

quickly picks up with fragmented parts of motifs and other short new sound events, without losing the drive and clear forward directionality. However, this second longer and developmental phrase also comes to a halt with the chirp of swallow 1. Swallow 2's chirps' function as interruptions of the swallow one, bringing its song to a halt, causing a pause. In this unit, I interpret that swallow 1 is quite entrained with the swallow 2, it lends ear to swallow 2, stops and listens whenever the second swallow enters. There is an intense listening, with pauses that open up space for the swallow 2. See swallow analysis, in Figure 4.69 and listen Sound example 4.69.

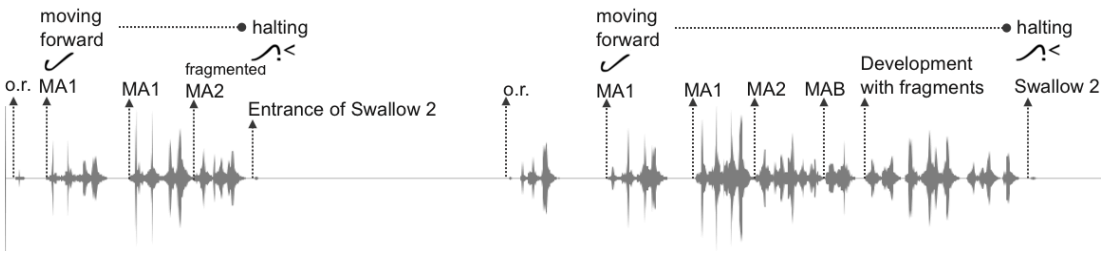

Figure 4.69 : Swallow Duo Unit 1.3 Analysis.

Similarity Response Unit 1.3: In the first phraselet, the similarity response follows swallow 1. It supports the motion trajectory "moving forward", and stops when the swallow "halts" with the second swallows chirp. With the halting, the resonances of tones are left ringing, and slightly moving (pitch and timbre-wise). Here, there is a sense of questioning and mystery evoked by this new second swallow-voice that appears in the aural domain.

The similarity response wants to pick-up the energy and begin anew, with the second phrase. It acts immediately and initiates the second phraselet, beginning before swallow 1, and leading to the swallows opening remark. The response quickly gains momentum along with the swallow; it is energetic and has a strong push "moving forward". It imitates the rhythmic flow of the motifs and the general contours of pitch height.

The similarity response imitates and supports the movement and energy trajectory of swallow 1. At the end of the second phraselet of this unit, it responds to the halting chirp of swallow 2 by means of imitation, as well as supporting the sudden stop of swallow 1. See similarity response in Figure 4.70 and listen Sound example 4.70.

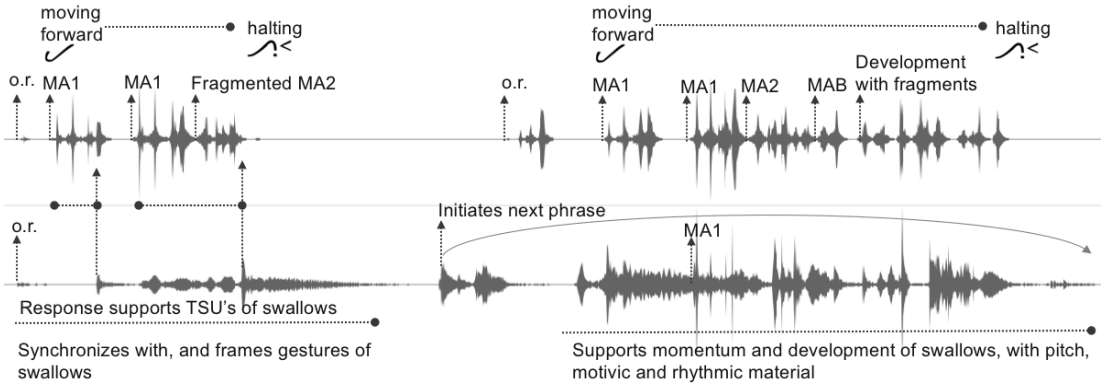

Figure 4.70 : Section 1, Unit 1.3, Similarity Response.

Difference Response Unit 1.3: The difference response begins before the swallow, with intentionality. The sound types and behavior are similar that of the previous unit, one new type of sound that stands out to the ear is a multiphonic sound with immediate yet soft attack and long resonant tail, with slow decay.

With the entry of the swallow, the pitched and fluty high-frequency range sounds begin "singing" in counterpoint to the motivic song of the swallow with motifs that move in a slower temporal pace. In this unit, the fluty sounds clearly appear as another agent, almost like another species of bird, a synthetic one. They are "sung" along with the other sounds, forming yet another layer. These fluty sounds operate on a surface level of the com-position together with swallows. The response layer accumulates slowly and becomes polyphonic and multilayered within itself.

The response follows the overall phrase of the swallow in the first half of the unit, tracing the gesture and ending with the "halting" of the swallow. Then, within the second half, the response "moves forward" along with the swallow, however doesn't come to a "Halt" together with it. The response continues with fluty tones "singing" a motif, which somewhat echoes in the distance, filling the sound space with resonances.

Although the fluty sounds behave somewhat like a bird, they are synthetic and "sing" differently. Therefore, although being in a similar domain that of the swallow, implying a loose form of birdness, I categorize it mainly within the plane of difference response. The reason for this is, that by being similar enough, it begins playing with notions of real/unreal, natural/synthetic, living/non-living and therefore highlights various forms of comparative listening that opens up a space for contrapuntal relation, and expression of difference. This way, they are placed within a field of being together-apart. See difference response in Figure 4.71 and listen Sound example 4.71.

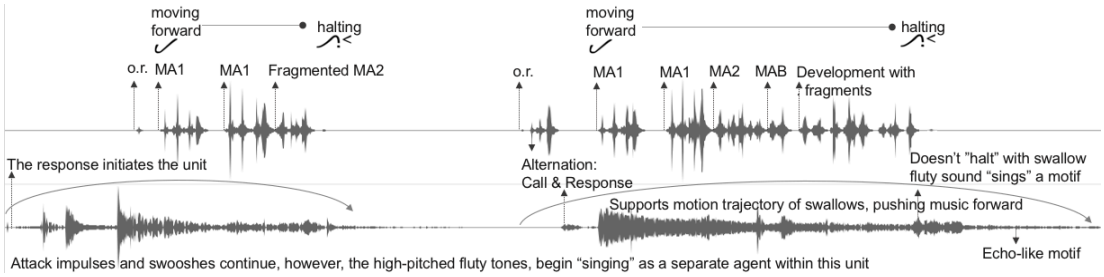

Figure 4.71 : Section 1, Unit 1.3, Difference Response.

Unit 1.4

Table 4.21 : S-wallow-ING, Unit 1.4.

SWALLOW VOICE	
Sound Events	**TSUs**
Motifs B1, B2 & AB	Moving forward

Swallow Unit 1.4: This is the first unit of the section that does not have an opening remark. Swallow 1, introduces motifs B1 and B2 for the first time. The swallow begins with low dynamics, and as it builds it up throughout the unit, develops motivic variations, creates a form of temporal compression, with a "motion forward". The swallow 1 ends with motif AB. Swallow 2 responds with a single chirp with a low dynamic, which I interpret as an affirmation to the ending. See swallow analysis, in Figure 4.72 and listen Sound example 4.72.

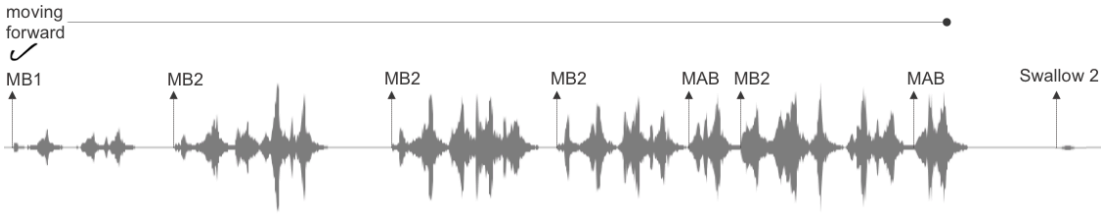

Figure 4.72 : Swallow Duo Unit 1.4 Analysis.

Similarity Response Unit 1.4: The similarity response continues supporting and following the swallow's motivic contours (rhythmic structure and pitch height) and introduces some new pitch elements, creating layers that support the overall energy trajectory of "moving forward". However, the response does not end with a conclusive ending, leaving a pitched-note (Note C) in the air. This tone creates anticipation and leads into the next unit; I call this the antecedent phrase. See similarity response in Figure 4.73 and listen Sound example 4.73.

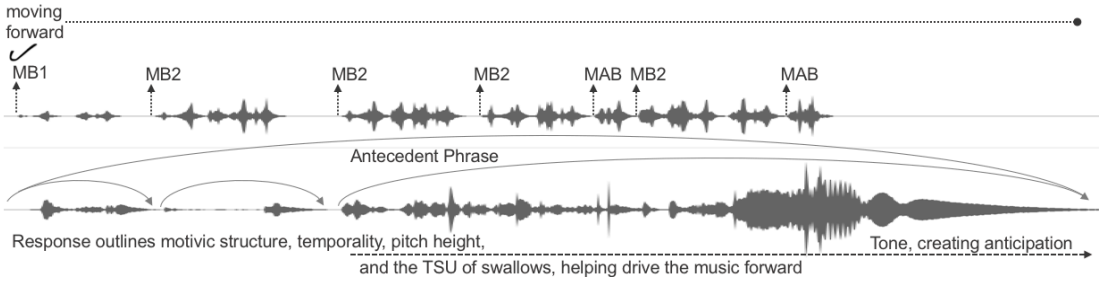

Figure 4.73 : Section 1, Unit 1.4, Similarity Response.

Difference Response Unit 1.4: The response begins with a strong and intentional stance before the swallow, not leaving much silence between this unit and the previous one. It continues with similar sound types and behavior of the previous unit. However here, the response layer consisting of whooshes, plucks, hits, and other multiphonic tones begin intertwining and accompanying the fluty layer of the response. And the fluty layer continues to move in contrapuntal relation to the swallow song. The multiple layers of the response become more pronounced in this unit. The response continues to follow and support the energy trajectories and various gestures, and pushes the music forward towards the non-conclusive ending and creating anticipation. See difference response in Figure 4.74 and listen Sound example 4.74.

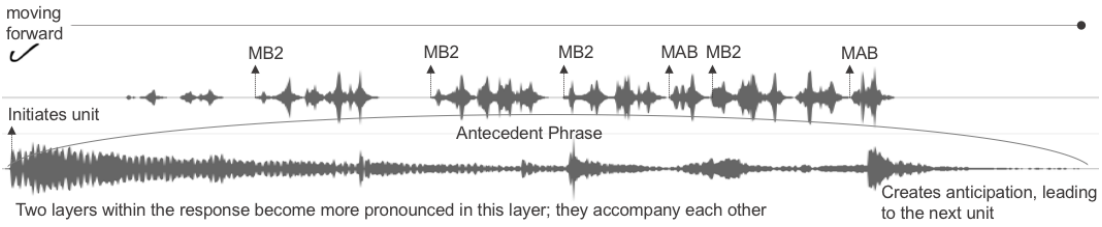

Figure 4.74 : Section 1, Unit 1.4, Difference Response.

Unit 1.5

Table 4.22 : S-wallow-ING, Unit 1.5.

SWALLOW VOICE	
Sound Events	**TSUs**
Motifs A1, A2 & B3	Statement
Variations of A and B motifs	Moving forward

Swallow Unit 1.5: Opening remark is sung by two swallows; swallow 2 begins, and swallow 1 responds. Right after the opening remarks, swallow 1 sings the full phrase A, (motifs A1 and A2). I interpret the function of this phrase, somewhat of a statement, as there is a full stop after the phrase A.

After phrase A, swallow 1 introduces new motivic and developmental material that could be read as fragments and variations of both A and B motifs. This section begins with two swallows, where the swallow 2 utters a single chirp. I fabulate this chirp as a trigger for energy and drive in swallow 1. Overall in the piece, swallow 1 is more active than swallow 2, and sings in higher dynamics. Up to this part of the song, swallow 1 is tightly entrained with swallow 2: it responds to swallow 2 in consequential ways where it either stops singing, sings a response motif to the call motif, or starts singing right away with the chirps of swallow 2. Later in the song, these relations and responses get more complicated, entangled and messier.

The developmental part sung by swallow 1, drives the motion trajectory by "moving forward" and leads to a conclusive ending with the noisy clicking vocalizations heard for the very first time (Motif B3); ending the unit as well as section 1. Motif B3, is always uttered with a prepatory two-note short motif, marked in the analysis below as preparation of B3. This unit is the strongest motion forward so far in the song and comes to a full closure. Swallow 2, responds to this section by a low dynamic response "statement" utterance of two short chirps, which I again interpret somewhat of a nod to swallow 1's song, as it lingers in the air. The swallows 2's utterance is wrapped by the silence of swallow 1, and the background soundscape where other birds' chirps appear in the distance.

The italic writing indicates that there is no corresponding TSU. In Figure 4.75 given below, the "*statement*" could be observed in italic writing. See swallow analysis, in Figure 4.75 and listen Sound example 4.75.

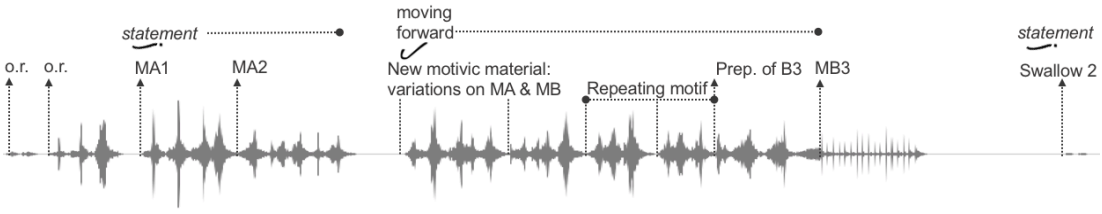

Figure 4.75 : Swallow Duo Unit 1.5 Analysis.

Similarity Response Unit 1.5: The response continues to imitate the swallow's motivic development, tracing and imitating its rhythmic structures, motifs, behaviors as well as various sound types. The last response event (an iterative long sound) that begins with, and imitates the sound type of MB3, keeps on going after the swallow

stops, elongating the phrase and bringing the first unit to a full stop. See similarity response in Figure 4.76 and listen Sound example 4.76.

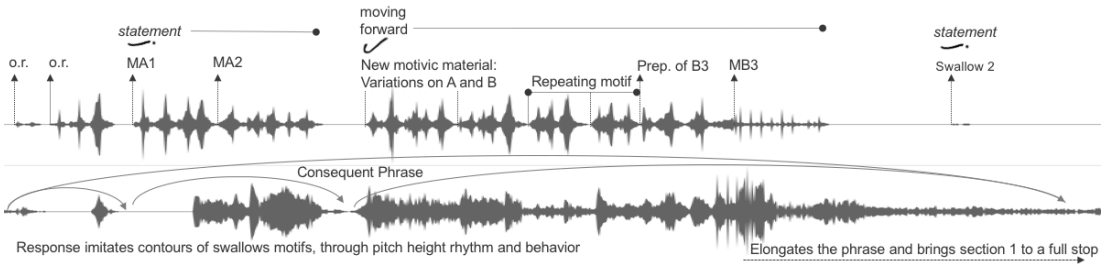

Figure 4.76 : Section 1, Unit 1.5, Similarity Response.

Difference Response Unit 1.5: The response follows one energy trajectory throughout the unit: it slowly builds up the energy and motion, "moving forward", and leads to a high point along with the clicking sound (motif B3) of the swallow. In this final unit of section one, the response builds up the energy trajectory with dynamics, pace of temporal events as well as layering of various sounds and timbres.

The fluty tones turn into squeaks, marking a final force that leads to the ending of swallow's phrase. This point is the highest point of the energy trajectory "moving forward", the response had built up. The swallows fall into silence, and from this silence, in the response, arises an iterative sound that emits inharmonic sounds and waves of resonances of various high-pitched tones. Along with this iterative sound, various plucked sounds and the high-pitched fluty sounds appear in low dynamics that leak and continue into the next section.

This last iterative sound event, again plays with the real/unreal division: its sound type is both close enough (highly imitative) to the swallow's sound type (MB3), and different enough as to be differentiated from it. See difference response in Figure 4.77 and listen Sound example 4.77.

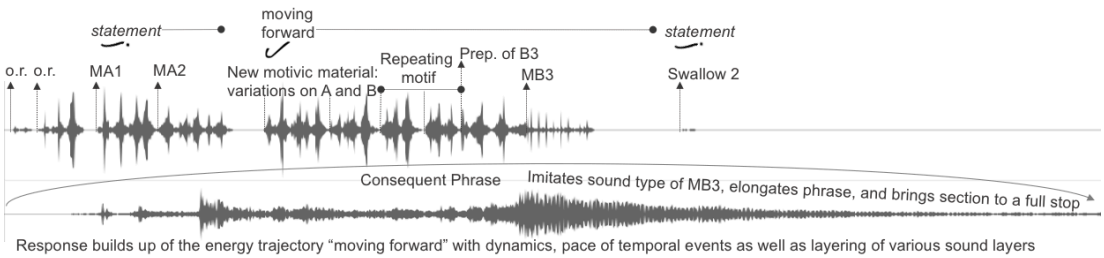

Figure 4.77 : Section 1, Unit 1.5, Difference Response.

4.3.4.2 S-wallow-ING: Section 2

Section 2 is a short section between 1:07-1:30, and could be unpacked into three miniature units. Throughout section 2, the two swallows sing together. Swallow 2 sings much more sparsely compared to swallow 1, however swallow 2 has clear statements and causal effects on the behaviors of swallow 1. These dialogic behaviors could be observed clearly throughout section 2. See Figure 4.78 below; listen to Sound example 4.78.

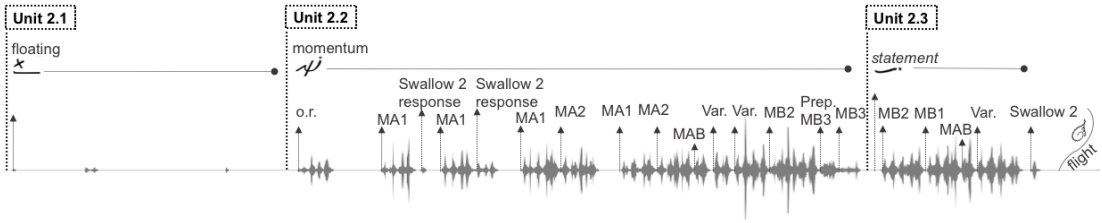

Figure 4.78 : Duo Swallow's Dawn Song; Section 2 Analysis.

Unit 2.1

Table 4.23 : S-wallow-ING, Unit 2.1.

SWALLOW VOICE	
Sound Events	**TSUs**
Short, single and double chirps	Floating

Swallow Unit 2.1: This unit comprises three short chirping sound events of swallow 2 in solo, "floating" lightly over the subtle background layer of the soundscape without a pattern. The short sound events appear and disappear without suspense and expectation. The sound events are not complete motifs, but consist of short single or grouped chirps. See swallow analysis, in Figure 4.79 and listen Sound example 4.79.

Figure 4.79 : Swallow Duo Unit 2.1 Analysis.

Similarity Response Unit 2.1: The response responds to the sound events of the swallow through a call-response relationship, and keeps the TSU characteristic "floating" intact with the first two sound events of the swallow; with the third sound event, the response leads to the swallow chirp, and immediately picks up creating an

intentional gesture, breaking the trajectory of "floating" and creating a form of momentum. See similarity response in Figure 4.80 and listen Sound example 4.80.

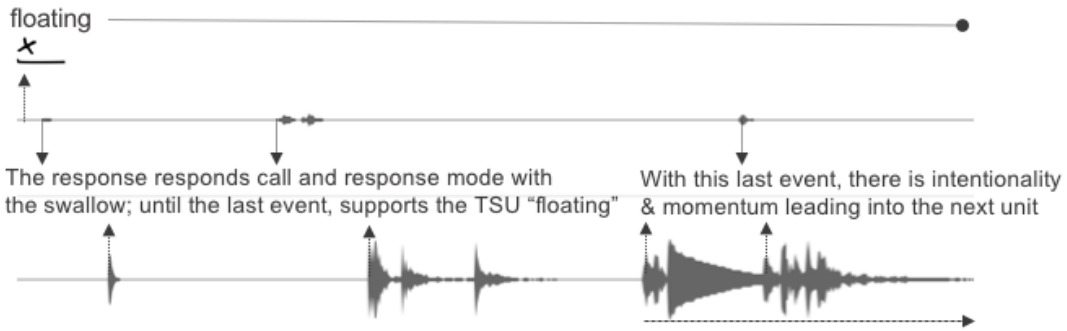

Figure 4.80 : Section 2, Unit 2.1, Similarity Response.

Difference Response Unit 2.1: The iterative sound that began in the last unit continues in this unit, and it is coupled with plucked sounds, and fluty sounds consisting of high-pitched fluty sounds that appear in low dynamic, together with fluty tones in the low-mid frequency range. These low-mid frequency fluty tones begin to get more active and foregrounded, throughout the unit creating yet another layer within the response. The attack impulses move in alternation with the swallow's single chirps, creating dialogic behavior above the background layer, where pitched material is brewing and slowly will be building up reaching to an arrival at the end of this section. Apart from this back and forth correspondences, the response layer forms a background layer and does not disturb a sense of "floating" of the swallows. In this unit at least three simultaneous layers could be heard in the response. See difference response in Figure 4.81 and listen Sound example 4.81.

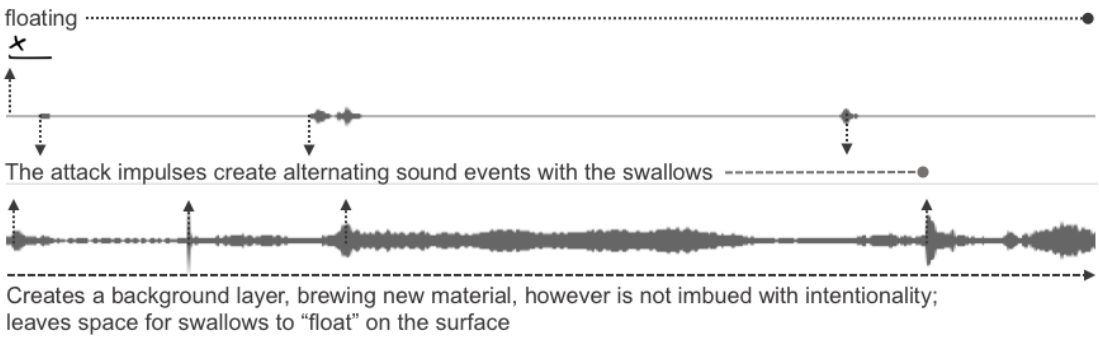

Figure 4.81 : Section 2, Unit 2.1, Difference Response.

Unit 2.2

Table 4.24 : S-wallow-ING, Unit 2.2.

SWALLOW VOICE	
Sound Events	**TSUs**
Opening remark	Momentum
Motifs A1, A2, AB, B2 & B3	---
Variations and fragments of A and B motifs	---

Swallow Unit 2.2: This unit opens up with an opening remark followed by A and B motifs along with some variations, and arrives at full closure with motif B3. Each consecutive sound event (on the motivic level) is full of energy and is longer than the previous one, portraying a clear development, and a "momentum". The phrase encompassing this unit, is the longest phrase so far. See swallow analysis, in Figure 4.82 and listen Sound example 4.82.

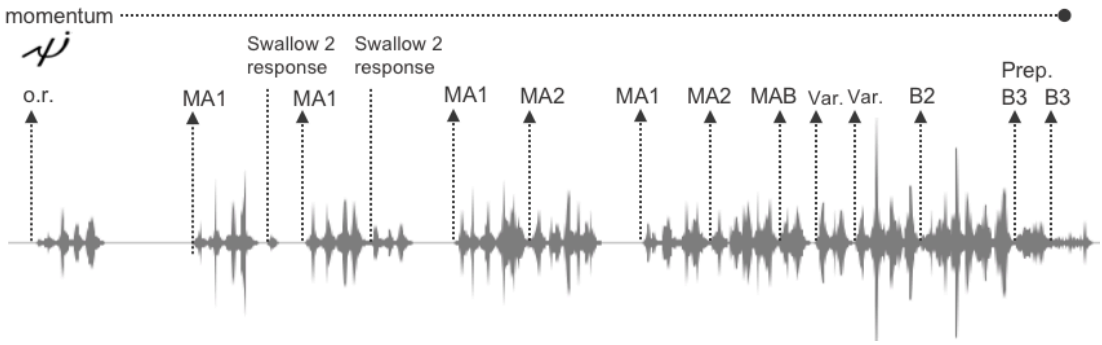

Figure 4.82 : Swallow Duo Unit 2.2 Analysis.

Similarity Response Unit 2.2: In this unit, the events of similarity response evolve, and compression on temporal level occurs. These support the "momentum" of the swallows and pushes motion forward to the end of the unit. The response uses a variety of sound types, and mainly portrays an imitative behavior. See similarity response in Figure 4.83 and listen Sound example 4.83.

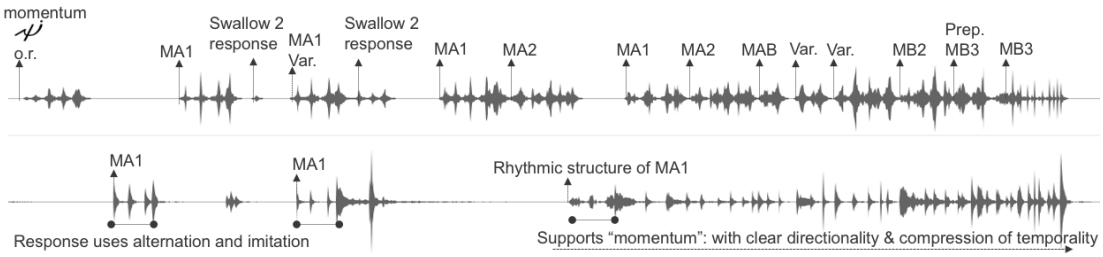

Figure 4.83 : Section 2, Unit 2.2, Similarity Response.

Difference Response Unit 2.2: In this unit, the iterative sound that began in unit 1.5 still continues to resonate. The plucked sounds and the high-pitched fluty sounds begin to rise in dynamics and get more pronounced and noisy swooshes continue. On one of the surfaces, there is a repeating note (an F#) that is occurring in different registers and timbres, building up wonder and expectation. The fluty tones begin moving in isolated yet gliding tones with not much intention, over the more foregrounded intentional movement occurring in low-mid frequency range, initiated in the last unit.

Below all activity, we begin to hear a continuous tone which rises in dynamics slowly throughout the unit, slowly building up. During my rehearsals, I could not, not help but imagine a noisy, chordal electronic drone that was underneath what I was playing. So, in the com-position, after my rehearsals, I added this drone I have "heard" together with my playing. This continuous, electronically produced drone heard in the beginning of the unit, is the beginning of a series of electronic sound blocks I call scenes, as they create different sound spaces by somewhat providing a plane for everything else to exist upon; functioning to glue everything together.

The rise of tension, does not resolve along with the ending phrase of the swallow (clicking B3 motif), but keeps on slowly but surely continuing its trajectory to build more tension, emanating and spilling over into the next unit. See difference response in Figure 4.84 and listen Sound example 4.84.

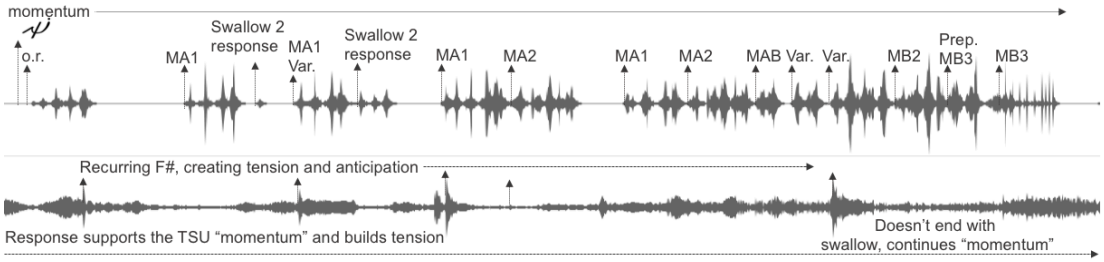

Figure 4.84 : Section 2, Unit 2.2, Difference Response.

Unit 2.3

Table 4.25 : S-wallow-ING, Unit 2.3.

SWALLOW VOICE	
Sound Events	**TSUs**
Motifs B1 & B2	Moving forward
Fragments and variations of B motifs	---

Swallow Unit 2.3: Although the previous unit ends with the conclusive MB3, the swallow quickly picks-up with a drive of high energy, continuing to sing short segments consisting of B motifs. Instead of a sense of a trajectory of moving forward, I interpret it somewhat of a post-comment on the previous unit; and coin it "statement". After swallow 1's statement, there is a short pause of silence, and a single chirp from swallow two, closing off the section. The ending of the unit is non-conclusive and is sung almost in a hesitant manner. At the end of the section, swallow 1 takes a brief flight into a branch that is further right to the panorama, changing spatial positioning. See swallow analysis, in Figure 4.85 and listen Sound example 4.85.

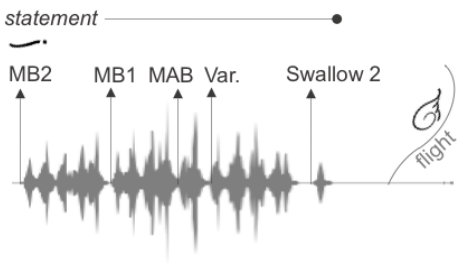

Figure 4.85 : Swallow Duo Unit 2.3 Analysis.

Similarity Response Unit 2.3: In order to convey the swallow's high energy drive picked up from the last unit, the response begins with a transient, iterative sound event that overarches the unit, supporting swallow motion trajectory, "statement". This iterative sound event drops in dynamics, fading out, resolving tension and leads into the next section. See similarity response in Figure 4.86 and listen Sound example 4.86.

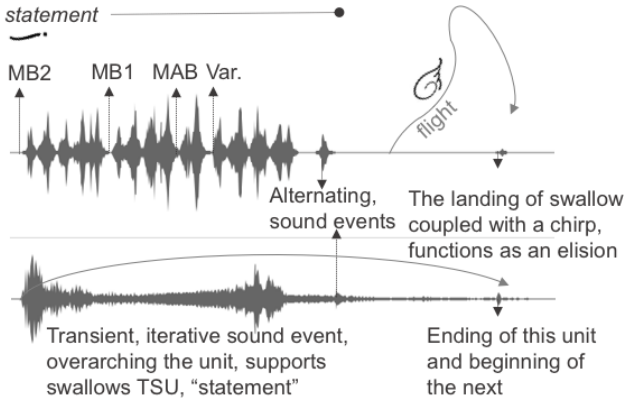

Figure 4.86 : Section 2, Unit 2.3, Similarity Response.

Difference Response Unit 2.3: The difference response continues building the tension with the same sound material and behavior from the previous unit, and reaches the arrival point with the final chirp of the swallow within the unit. From within the arrival,

swallow 1 takes a flight, and leads the music into the next unit. The response overrides the swallows motion trajectory "statement", as it continues to build tension, and creates anticipations and "momentum" forward.

Within section 2, the response creates a single phrase arching through the end of unit 1.5 until the end of unit 2.3, creating the longest phrase so far in the piece. Here section 3 is carried to several seconds earlier, where the arrival point of unit 2.3 functions as an elision, both ending and initiating section 3. See difference response in Figure 4.87 and listen Sound example 4.87.

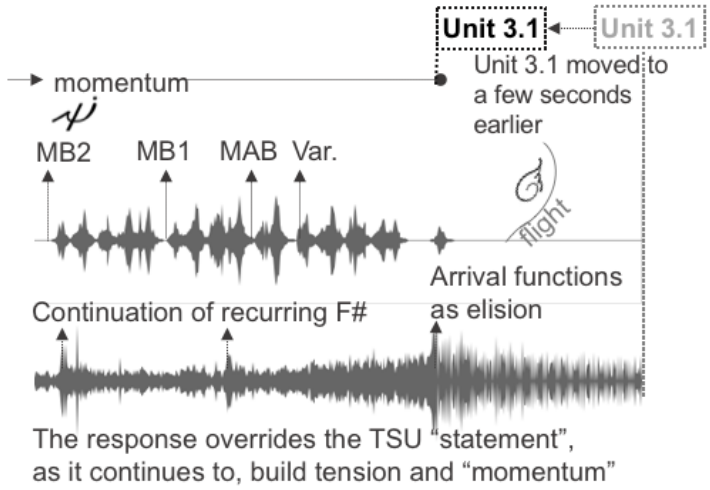

Figure 4.87 : Section 2, Unit 2.3, Difference Response.

4.3.4.3 S-wallow-ING: Section 3

Section 3 spans from 1:30 to 2:02, and comprises four units. Swallow 2 becomes more active in this section. However instead of full motifs and patterned phrases, it sings in single or coupled chirps. Swallow 1 sings the full sentence (motifs of A followed by motifs of B with some variations and a conclusive ending) for the very first time. See Figure 4.88 below; listen to Sound example 4.88.

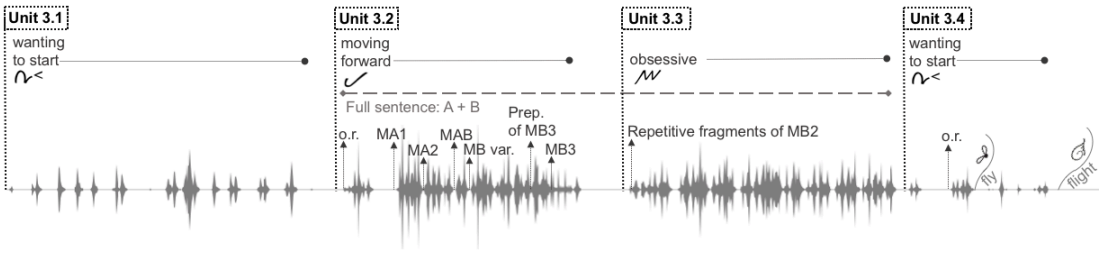

Figure 4.88 : Duo Swallow's Dawn Song; Section 3 Analysis.

Unit 3.1

Table 4.26 : S-wallow-ING, Unit 3.1.

SWALLOW VOICE	
Sound Events	**TSUs**
Sung mainly by swallow 2	Wanting to start
The singing is comprised of single and double chirps, instead of full motifs	---

Swallow Unit 3.1: In this unit, we hear swallow 2 singing actively and persistently for the first time. Here, the swallow 2 sings an insistently reiterating chirp with slight variations. The chirps in this unit are mostly high in dynamic and articulate; portraying a confident stance.

Musically, I interpret these chirps, as "wanting to start", as if these reiterations are wanting to initiate motion, implying intention to begin action (bursting into motifs). Swallow 1 responds to these chirps after some time in a similar singing manner; with a few chirps. Here, we hear swallow 1, from its new spatial position, one that is placed further on the right; however, short after, it takes another flight, and arrives back to its initial branch/position in the panorama. This flight is not clearly heard, as wing flutters (composed of iterative soft pulses) sound faintly. See swallow analysis, in Figure 4.89 and listen Sound example 4.89.

Figure 4.89 : Swallow Duo Unit 3.1 Analysis.

Similarity Response Unit 3.1: The response supports swallow's TSU "wanting to start", and makes various attempts in starting the motion; however, each attempt comes to a halt without developing. In the performance stage, in implying an effort to begin, I played with rubbers against strings, where resistance is felt on the tactile and motion level. The initiation of actions imply intention and are strong statements however, every attempt comes to a stop. It is as if they want to continue, yet cannot. At the end

of the unit, there is a feeling of a full stop, as of giving in, and in need of rest. See similarity response in Figure 4.90 and listen Sound example 4.90.

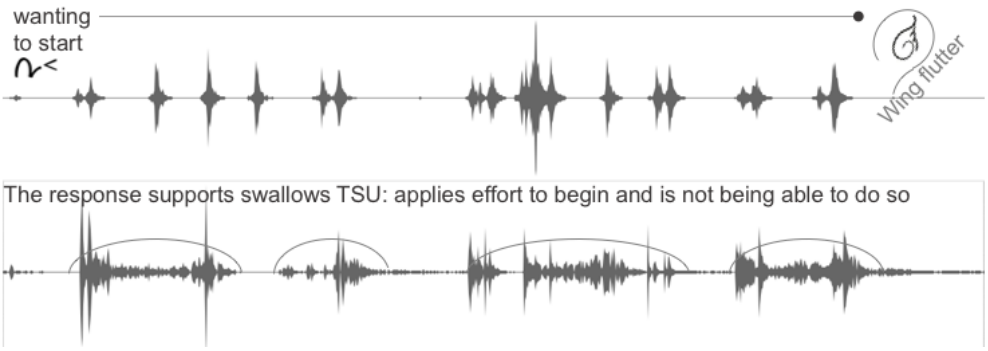

Figure 4.90 : Section 3, Unit 3.1, Similarity Response.

Difference Response Unit 3.1: As mentioned in the previous unit, the difference response carries unit 3.1 to two seconds earlier, to the final chirp where the swallow ends its phrase. We hear the noisy, almost organ-like electronics, creating an elision through functioning as both a resolution, and opening up a new "scene" within the music. The electronics form a back-bone where various plucks, attack impulses, whooshes, fluty sounds and other events move in alternation and synchronization with the sparsely occurring, non-motivic chirps of the swallows.

The response, as a multilayered and polyphonic texture, forms 1) a background level with the electronics, 2) a mid-ground level with whooshes, plucks, hits, and other multiphonic and inharmonic tones played with the keys of the piano (strong attack and long decay), and 3) a foreground level consisting of fluty tones that are pitched and move in motivic and melodic motion, creating a contrapuntal dialogue with the swallows. I paid careful attention not to overpower the voices of swallows, however in this unit, the swallows are no longer in the immediate surface of the music. They are weaved within the multiplicity of agents.

The TSU of the swallows is changed with the response, the notion of "wanting to start" is overridden by the ongoing layer of the response, creating a forward continuous motion; "moving forward". The response prolongs the unit 3.1 for three more seconds: the opening remark of swallows that occur unit 3.2, are now included within this unit, as their meaning has changed. The opening remark of the swallow is overridden by the forward motion and development happening in the response. See difference response in Figure 4.91 and listen Sound example 4.91.

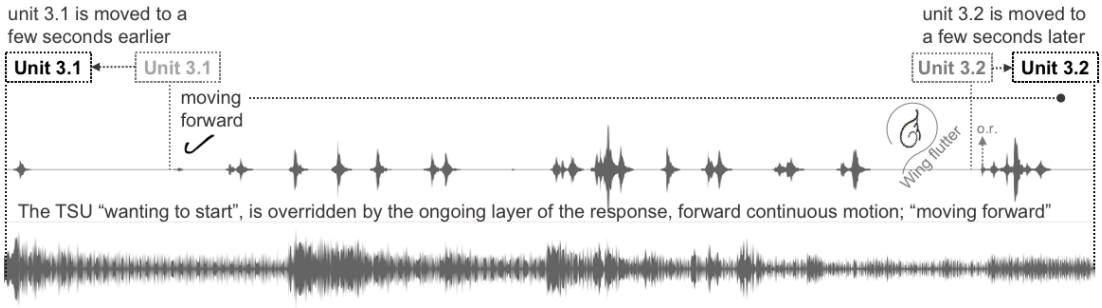

Figure 4.91 : Section 3, Unit 3.1, Difference Response.

Unit 3.2

Table 4.27 : S-wallow-ING, Unit 3.2.

SWALLOW VOICE	
Sound Events	**TSUs**
Opening remark	Moving forward
Motifs A1 & A2, AB & B3	---
Variations of B motifs	---

Swallow Unit 3.2: Opening remark is sung by the two swallows; the two birds' chirps complete one another's. The swallow 2, continue singing in single or double chirps, punctuating various points in swallow 1's song. We hear the complete sentence (combination of A and B phrases) with clear forward intentionality, "moving forward". Swallow 1 sings the complete sentence: phrases A, followed by phrase B (B with variations) ending with the conclusive closing remark MB3. See swallow analysis, in Figure 4.92 and listen Sound example 4.92.

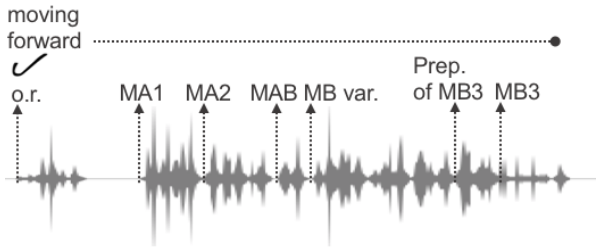

Figure 4.92 : Swallow Duo Unit 3.2 Analysis.

Similarity Response Unit 3.2: The response doesn't start with the opening remark of the swallow, as it is still recovering and gathering energy from the previous unit. However, when it starts, it starts with full energy, high dynamics and a clear sense of forward motion. It follows the rhythmic gestures of the swallows, tracing, imitating and supporting the overall flow; and carefully opens up windows for the utterances of

swallow 2. The final tone and its resonance support the non-conclusive closure of the section, and subtly leads the listening to the next unit. See similarity response in Figure 4.93 and listen Sound example 4.93.

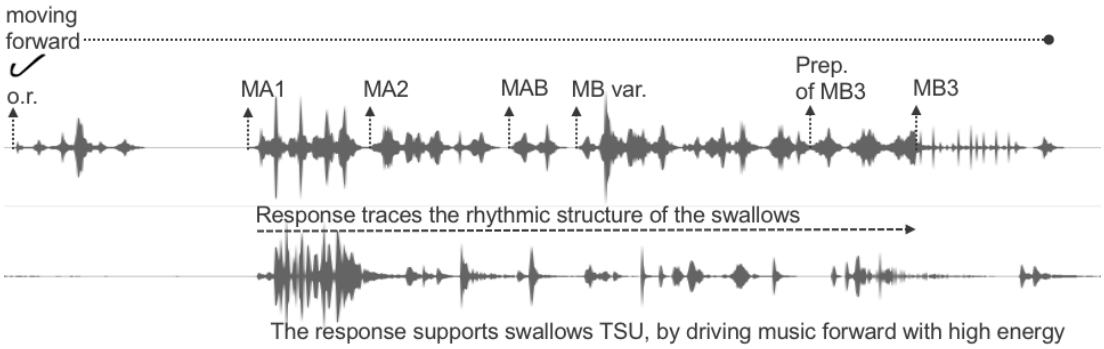

Figure 4.93 : Section 3, Unit 3.2, Similarity Response.

Difference Response Unit 3.2: As mentioned above, with the difference response, this unit begins three seconds later. In the new beginning of the unit, there is a sudden change in the electronic "scene" (its pitch content, timbre and texture of drone). Along with the background electronic ambience, there are re-occurring fragments of multiphonic jabs, created by chopping the recording. Here I wanted the response to sound synthetic, and further differentiate sound sources, playing with the real/non-real. However, I wanted all this to be on a background layer, enabling a space for the swallow song to surface again. The main element that brings the highly active swallow song to the foreground are the static elements unfolding in a slow temporal pace in the response. Here the response supports swallows' energy trajectory, "moving forward". The response layer ends with a sudden break of the electronics with glitched material, contributing to, and supporting the synthetic plane it is situated on. See difference response in Figure 4.94 and listen Sound example 4.94.

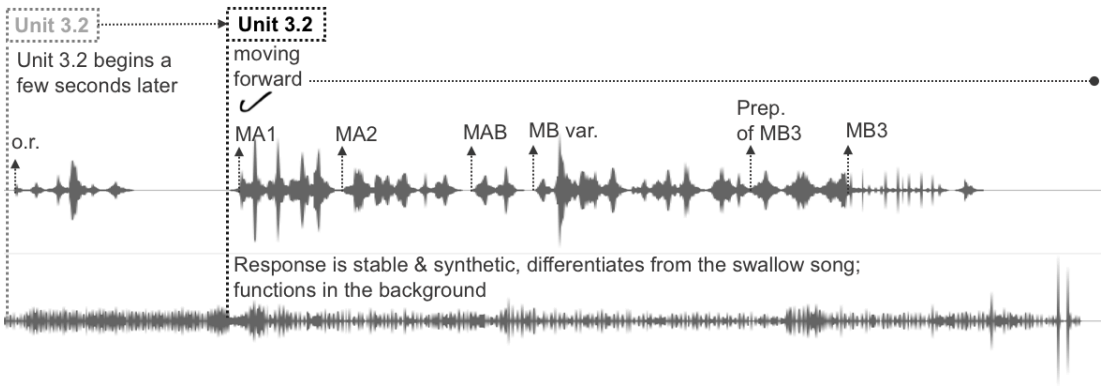

Figure 4.94 : Section 3, Unit 3.2, Difference Response.

Unit 3.3

Table 4.28 : S-wallow-ING, Unit 3.3.

SWALLOW VOICE	
Sound Events	**TSUs**
Motifs B2 & AB	Obsessive
Fragments and variations of B motifs	---

Swallow Unit 3.3: This unit opens up directly with B motifs, continuing the second half of the sentence of swallows birdsong, begun in the previous unit. The B motifs are repeated with variations, "obsessively", without pauses in-between them. In some variations, we hear that the motifs are extended, and in others they are shortened (compressed), or flat out fragmented. The unit comes to a halt without clear conclusion with the expected clicking sound, B3 motif. See swallow analysis, in Figure 4.95 and listen Sound example 4.95.

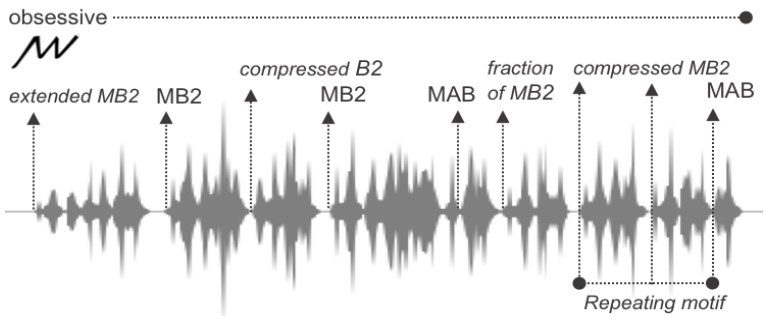

Figure 4.95 : Swallow Duo Unit 3.3 Analysis.

Similarity Response Unit 3.3: The response follows, rhythmic movement and gestural marks of the swallow's song in an imitative manner.

Here in the performance stage I found it difficult to join-in within the sonic habitat of the recording without overpowering the swallows. The reason for this was because there is already quite a lot of musical information within the song of the swallows. After a rehearsal period, I ended up with a version where I do not meticulously follow the motion trajectory of the swallows, but trace and punctuate certain point in the song.

In the second half of the unit, (as shown below, under one long slur), the response has a sense of forward motion, however it doesn't easily flow forward, and ends up being somewhat timid. This is caused by my reservation to overpower the birdsong. In the end, I liked this stance, because the response sits at an odd place: it allows the ear trace and follow the obsession of the singing of the swallow, and does not override the

obsessive behavior within the birdsong. It is situated in an intersection of both supporting it and changing it by imbuing it with some forward motion. See similarity response in Figure 4.96 and listen Sound example 4.96.

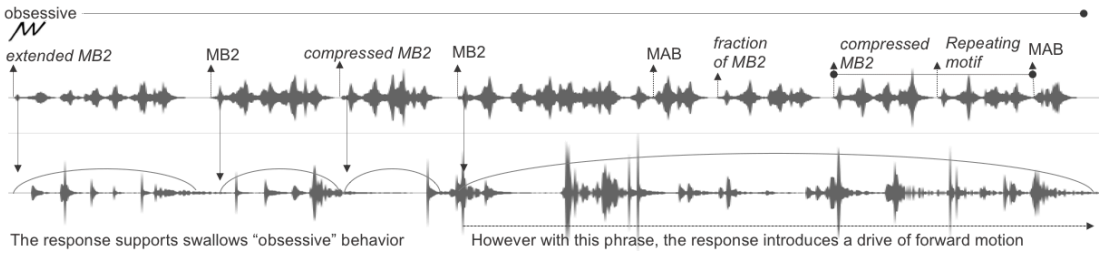

Figure 4.96 : Section 3, Unit 3.3, Similarity Response.

Difference Response Unit 3.3: The difference response hangs in silence as the swallow sings its first two motifs, and joins-in with a forward motion, intentional manner against and together with the "obsessive" and repetitive drive of the swallow song. The response supports the intentionality of the swallow song, and traces some of its gestures and motifs through a non-repetitive, multilayered textural approach using a variety of sound types, that contrast the swallow's behavior and sound types. The response ends together with the swallow's phrase. See difference response in Figure 4.97 and listen Sound example 4.97.

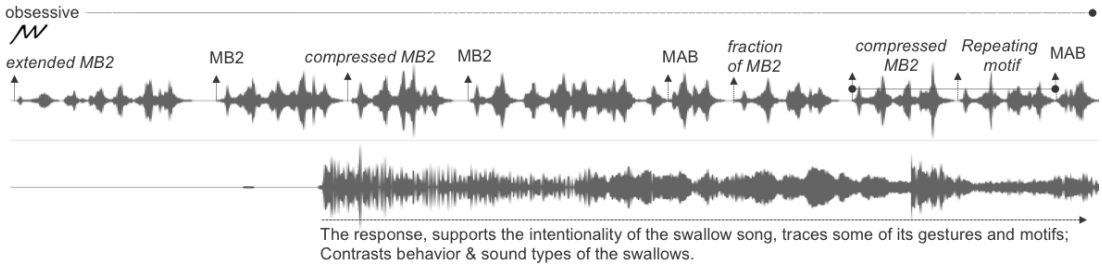

Figure 4.97 : Section 3, Unit 3.3, Difference Response.

Unit 3.4

Table 4.29 : S-wallow-ING, Unit 3.4.

SWALLOW VOICE	
Sound Events	**TSUs**
Opening remark	Wanting to start
Short chirps with some fragments of motifs.	---

Swallow Unit 3.4: Immediately after the previous unit, swallow 2 utters chirps somewhat implying an intention to "wanting to start". After a double chirp, the second swallow utters an opening remark, however the attempt does not pan out. The

swallows respond to one another in alternating short call-response chirps and swallow 1 takes a short flight, re-situating itself back on to the same branch, bringing the unit to a close. See swallow analysis, in Figure 4.98 and listen Sound example 4.98.

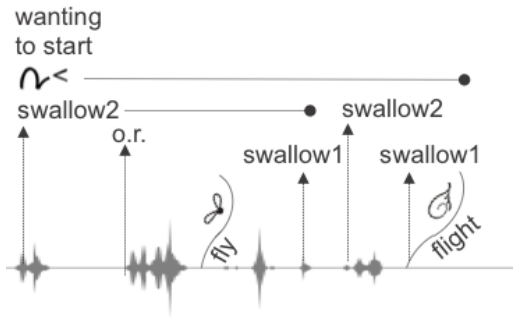

Figure 4.98 : Swallow Duo Unit 3.4 Analysis.

Similarity Response Unit 3.4: The similarity response supports the swallows' TSU; follows, articulates and imitates the chirps of the swallows with sparse events. The last sound event of the response is an iterative one, imitating the sound type of the flight of the swallow. This iterative sound event swells, and creates "momentum" leading into the next section. See similarity response in Figure 4.99 and listen Sound example 4.99.

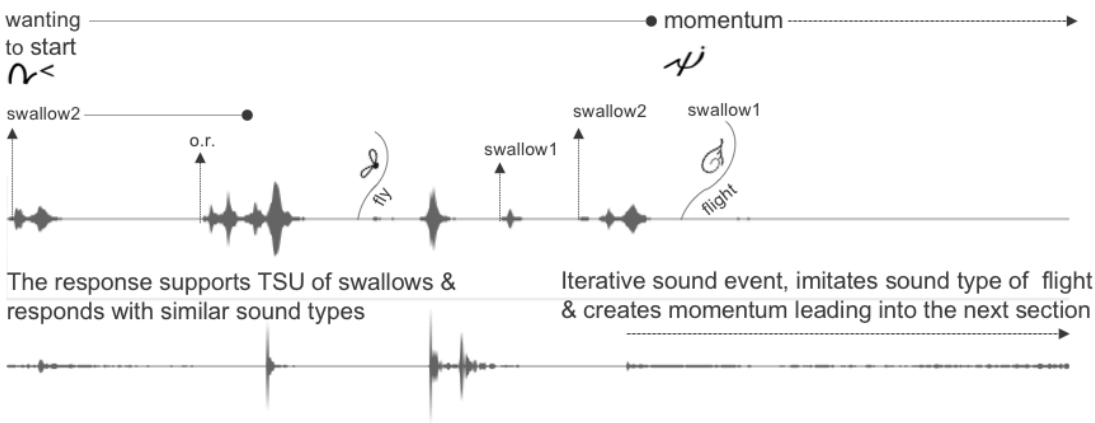

Figure 4.99 : Section 3, Unit 3.4, Similarity Response.

Difference Response Unit 3.4: The difference response begins by alternating sound events with the swallow chirps, it keeps the wonder and uncertainty, somewhat supporting swallows "wanting to start". With the last utterance of the swallows, accumulates energy and leads into the next unit, with an intentional motion. See difference response in Figure 4.100 and listen Sound example 4.100.

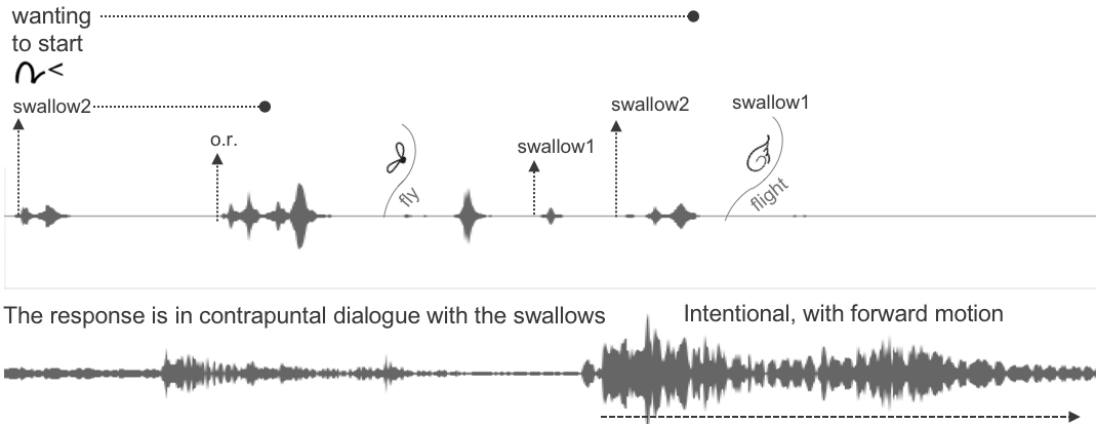

Figure 4.100 : Section 3, Unit 3.4, Difference Response.

4.3.4.4 S-wallow-ING: Section 4

Section 4 is between 2:02-2:23, and comprises two units. The swallow 2 is now quite active and confident, singing in full motifs. In this section, there is a tight interaction between the two swallows. The overall section is characterized by the close entrainment of swallows, where they complete and interrupt each other's sound events, moving between states of alternation and overlapping motions. See Figure 4.101 below; listen to Sound example 4.101.

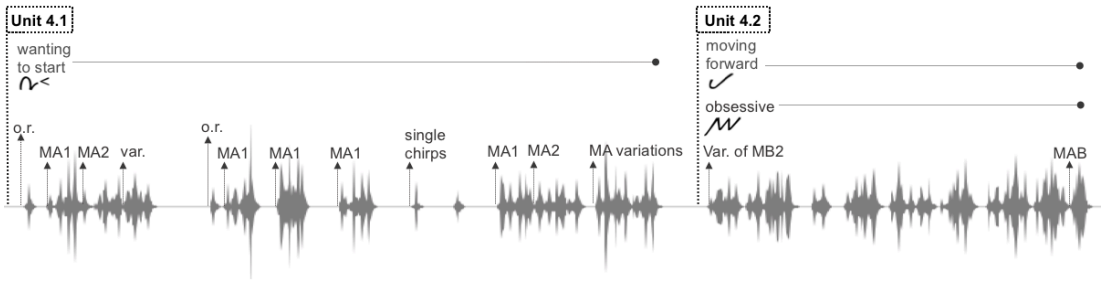

Figure 4.101 : Duo Swallow's Dawn Song; Section 4 Analysis.

Unit 4.1

Table 4.30 : S-wallow-ING, Unit 4.1.

SWALLOW VOICE	
Sound Events	**TSUs**
Opening remark	Wanting to start
Motifs A1 & A2	---
Variations of motif A	---

Swallow Unit 4.1: Due to either one swallow interrupting the other, or opening up a space for the other to sing, various pauses and sudden stops occur. In this unit we

witness a close entwinement between the two birds, as they complete and interrupt each other's utterances.

The unit begins with an opening remark of swallow 2, which moves directly into motifs A1, A2. These motifs are shared, by alternation and completion between the two birds. These come to a halt after a brief variation. Immediately swallow 2 continues with another opening remark, which is continued by swallow 1 with motif A1. Here the two birds are juxtaposing, intervening and completing each other's attempts, causing a recurrence of motif A1 in different configurations.

When a swallow enters while the other is singing, it brings the song of the other to come to a halt. As I fabulatively interpret, the bird who initially began singing, stops as if wants to listen to the other, waiting for the other to sing; I gather there is an intense listening, affecting behaviors of birds.

In this unit, we hear clear articulated beginnings that imply a sense of "wanting to start" and wanting to continue what has been begun. However, the attempts never come to a conclusive ending, and are always halted with each other's games of interruption and taking over the flow of the song. At the end of the unit, variation of motif A is introduced. See swallow analysis, in Figure 4.102 and listen Sound example 4.102.

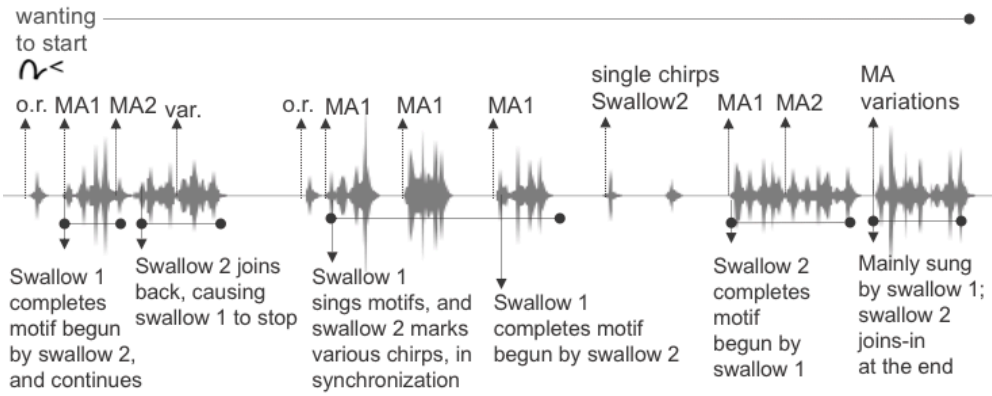

Figure 4.102 : Swallow Duo Unit 4.1 Analysis.

Similarity Response Unit 4.1: In the similarity response, I aimed to be a part of the interaction of completion and interruption of the swallows. I wanted to do this without blending in with them sound wise, and yet being a part of the interaction, situated as both "the other" and "with".

I found this quite difficult to achieve, as I tried to populate the sound space of these birds, and their already-complete and fascinating dialogues without me. Yet I still wanted to challenge myself in finding ways to share this sound space, and through a series of rehearsals of constant coordinating of the self, I came up with the following. To avoid the overload of sonic information, I tried to leave breathing space by not filling-in the short breaks created by the swallows. In order to find a balanced co-habitation, I relied on my own listening patterns. In avoiding masking and overpowering the back and forth passing of sound between the birds, I mostly became active within beginnings or tails of gestures, sometimes prolonging, sometimes contributing to the passing of sound back and forth between the two birds, through somewhat canonic and imitative means.

The response doesn't particularly support the TSU "wanting to start", as it imbues the unit with intentionality and forward motion, by filling in the gaps and developmental manner, however doesn't override it either. The three phases outlined by the response could be seen in the following figure. See similarity response in Figure 4.103 and listen Sound example 4.103.

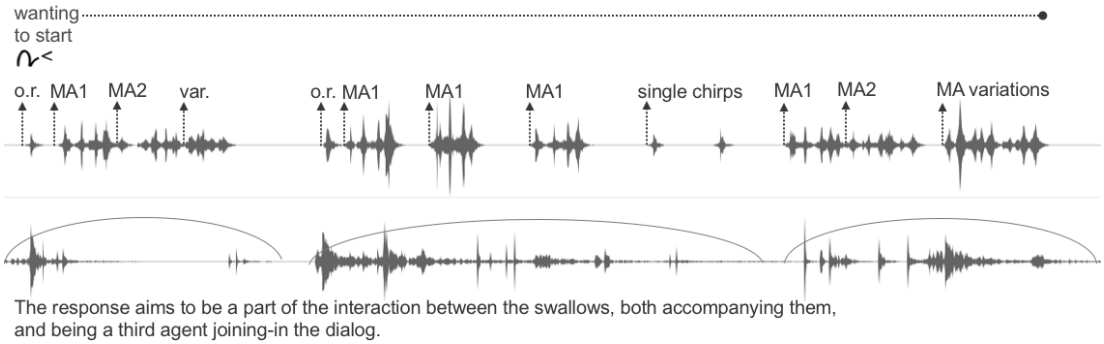

Figure 4.103 : Section 4, Unit 4.1, Similarity Response.

Difference Response Unit 4.1: The build-up from the previous section lands on a point of arrival with the beginning of unit 4.1. Here the response has at least two clear layers; 1) electronic drone throughout the unit, which functions in the background, and 2) a more foreground level that synchronizes with the swallow song using transient sounds, as well as fluty tones creating brief motifs. The synchronization does not operate within the smaller temporal scale of sound events of the swallows, but functions within a larger temporal frame; pointing to, and referring to various sections and parts of swallows' song.

With the beginning of the second phase of the swallows, the static layers of the electronics emerge to the foreground, and being morphing and changing timbrally. Along with these, the fluty tones also undergo change. They begin sounding richer and more metallic timber-wise, with longer decay time and reverberation. They move one more step into the realm of the "unreal". See difference response in Figure 4.104 and listen Sound example 4.104.

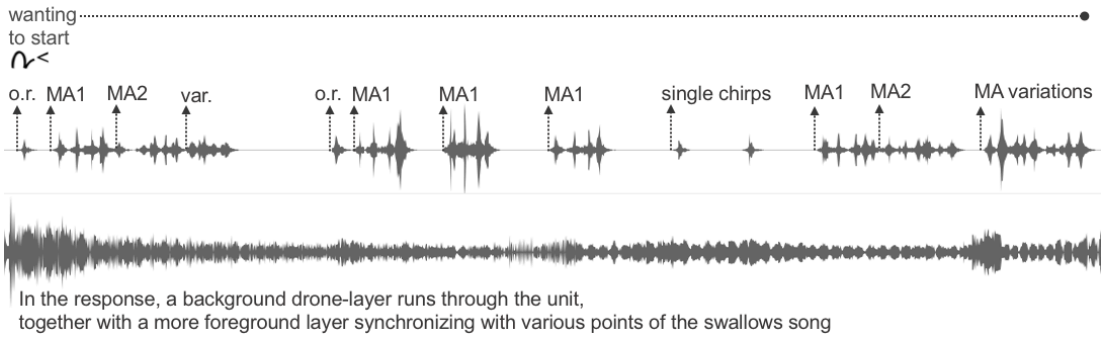

Figure 4.104 : Section 4, Unit 4.1, Difference Response.

Unit 4.2

Table 4.31 : S-wallow-ING, Unit 4.2.

SWALLOW VOICE	
Sound Events	**TSUs**
Variations of motif B2	Simultaneously: Moving forward & Obsessive
Ending with motif AB	---

Swallow Unit 4.2: Throughout this unit, except for the last two notes (motif AB) we hear the "obsessively" repeated B2 motif, that appear in slight variations. The B2 motif is repeated by the two swallows that interrupt and complete each other's utterances; there is a feeling of not being able to flow in a developmental state. However, the energy and motion builds up as the pauses between events become shorter, imbuing the unit with a drive of "moving forward". The dynamics rise throughout the unit and the two swallows end together in confident synchronization.

In this unit, the swallow 1 sings non-stop throughout, and swallow 2, joins-in as if trying to entrain with it. Swallow 2 at times completes swallow 1's motifs, and on others causes various initiations and halts in its song; creating odd timings felt on micro level. See swallow analysis, in Figure 4.105 and listen Sound example 4.105.

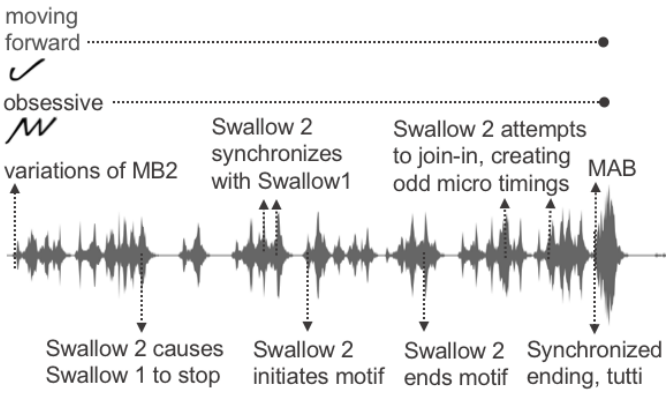

Figure 4.105 : Swallow Duo Unit 4.2 Analysis.

Similarity Response Unit 4.2: The similarity response begins with a pause, as to open up some space for the bird song, and allow a recuperation for the listener to tune back into bird song from the densely populated events of the response in the previous unit. It supports the forward-moving trajectory of the birds, and slowly builds up the density of events. It mainly consists of muted strings played by keys, somewhat imitating the amplitude envelope of the sound type of chirps; as well as imitating the temporal level of foreground activity. It uses forms of imitation, alternation and supports various gestures and motifs of the bird. The final high-pitched fluty sound functions as an elision, ending this unit and commencing the next. See similarity response in Figure 4.106 and listen Sound example 4.106.

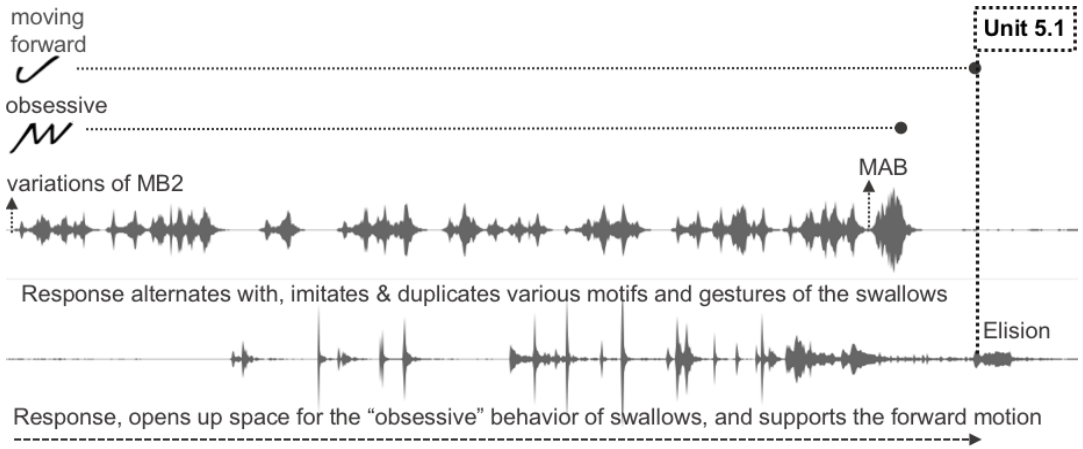

Figure 4.106 : Section 4, Unit 4.2, Similarity Response.

Difference Response Unit 4.2: The sound types introduced in the previous unit continue along with the same textural and behavioral response: the electronic layers are heard along with the more foregrounded layer that traces and marks various points in the swallow song. The response subtly supports the "movement forward", and allows the birdsong and its "obsessive" behavior to surface. Here there is more play

with inharmonicity and microtonal layers. Towards the end of the phrase of swallows, the response creates a cadence that leads to the next section. The arrival point functions as an elision, closing off this unit, and initiating the next section. See difference response in Figure 4.107 and listen Sound example 4.107.

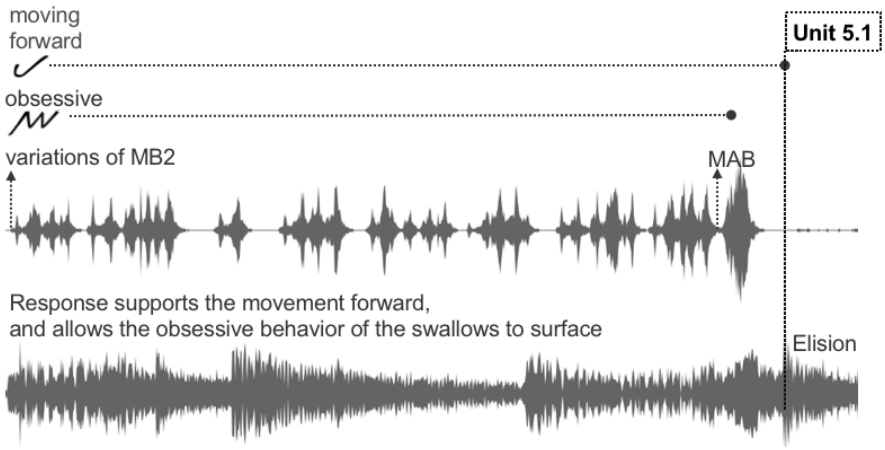

Figure 4.107 : Section 4, Unit 4.2, Difference Response.

4.3.4.5 S-wallow-ING: Section 5

Section 5 is between 2:23-3:00, and comprises two units. The section opens up with silences; here the swallows stop singing for a while, and we hear movement of their bodies through the short flights they do. Soon, together with the wing flaps we hear single high-pitched chirps like squeaks, that are low in dynamics together with fragments of motifs. These open-up a spacious and calm point in the piece; where the short sound events float above the background level of the soundscape (consisting of other birds).

In the second unit 5.2, these fragments progressively develop into full motifs where both of the swallows sing melodies simultaneously picking up and continuing from each others' motifs as well as interrupting them. As the development continues, there is a rise in dynamics, together with densely packed occurrence of sound events and a compression of temporal occurrence of events; all leading to the climax of the piece. See Figure 4.108 below; listen to Sound example 4.108.

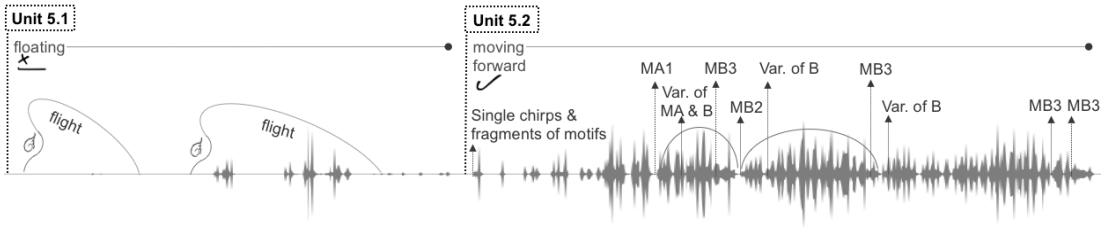

Figure 4.108 : Duo Swallow's Dawn Song; Section 5 Analysis.

Unit 5.1

Table 4.32 : S-wallow-ING, Unit 5.1.

SWALLOW VOICE	
Sound Events	**TSUs**
Sounds of Flight: Wing flaps comprised of noise-based iterative sound events, composed of attack impulses with soft, fast attack and decays.	Floating
Single high-pitched fluty chirps heard for the first time	---
Fragments of motifs	---

Swallow Unit 5.1: The unit opens up with silence; this is the first time in the piece where the birds stop chirping for this length of time. We hear the soundscape emerging from the background; here we have an environmental sound image, where the depth of space is experienced clearly, due to other birds singing in the space. In this unit, we only hear swallow 2: its wing flaps and chirps. Swallow 2 begins by taking a short flight, lands on another branch of the tree, this branch is a little right from the last branch and closer to us, however it is still situated on the left, what we can call the mid-left within the sound panorama; it stays here until the end of the piece. It utters high-pitched fluty chirps that have not been heard so far within the recording. Swallow 2's chirps flow lightly over the background layer of the soundscape, "floating".

As the swallow takes another short flight, it begins to sing; here we hear panoramic movement of sounds. These chirps are random and disjointed, without a pattern or creating an expectation. When the swallow lands, we hear once again the high-pitched sounds, but this time grittier timbral characteristics. See swallow analysis, in Figure 4.109 and listen Sound example 4.109.

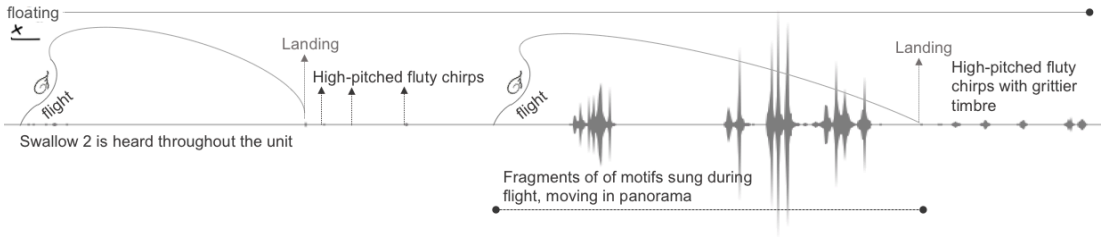

Figure 4.109 : Swallow Duo Unit 5.1 Analysis.

Similarity Response Unit 5.1: The similarity response preserves the spaciousness of the sound space of birds, and the sense of "floating". It responds by use of direct imitation on sound type level, aiming to imitate as closely as possible the high-pitched fluty sounds of the swallow, and to blend in with the swallow. After a short moment of blending in, the response then comes apart, differentiating itself, making the bird/instrument-object distinction. The response moves in tandem with dynamics and sound material of the swallows. Responding with muted keystrokes along with fluty tones in alternation, imitating the swallow. The final sound event pushes the ending of the unit to two seconds later. See similarity response in Figure 4.110 and listen Sound example 4.110.

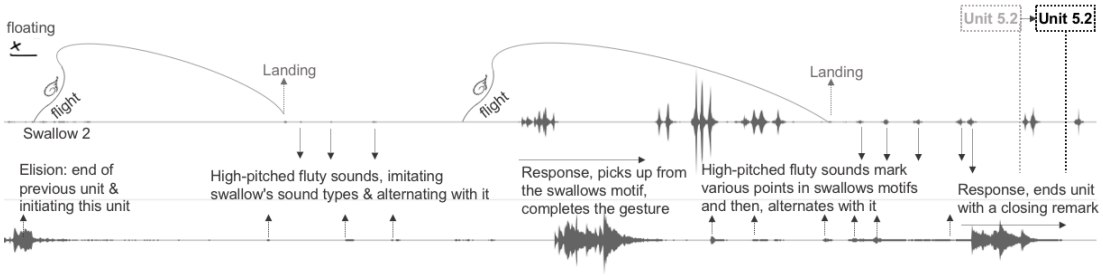

Figure 4.110 : Section 5, Unit 5.1, Similarity Response.

Difference Response Unit 5.1: The cadential behavior of the response leading to this section quickly loses energy as the swallow takes a flight and begins chirping in high-pitch fluty tones in low dynamics. With this loss of energy immediately after the arrival, the response takes time to settle within the arrival pitch (D flat).

The response creates three different tone-based sound blocks (produced electronically) in response to the swallow. The first is this arrival point, where the bird takes flight. The second is with the landing of the bird, where the response plays keys of muted strings, and from within this attack an iterative noise-based sound emerges, rising in dynamics that leads to a transient impulse attack. This impulse attack initiates the third electronically produced block of sound, forming a background for the swallow that

sings during its flight. Here we hear the voice of the swallow clearly moving within the panoramic field. Along with this final sound-block, we hear a melodic figure, played with key strokes of muted strings. This block of sound comes to a "halt" with glitch material, before the swallow lands back on the branch, opening yet again, a space for the birdsong to come to the fore. From here on, until the end of the unit, the response remains in the background, as to foreground the swallow chirps and the clear soundscape that emerges from the background. Here, the chirps of swallow 2 are high-pitched and repetitive chirps, sung in low dynamics. See difference response in Figure 4.111 and listen Sound example 4.111.

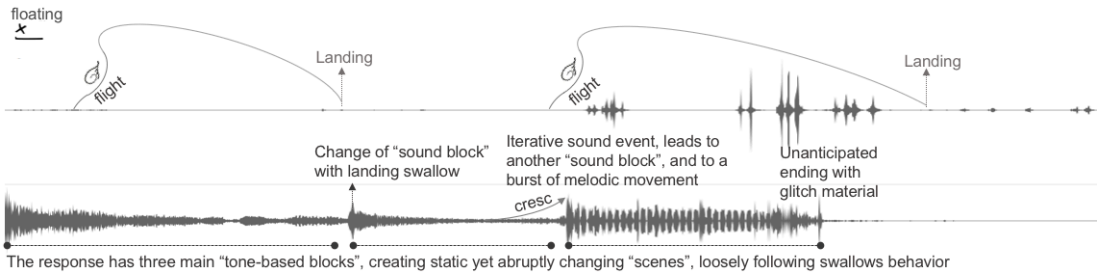

Figure 4.111 : Section 5, Unit 5.1, Difference Response.

Unit 5.2

Table 4.33 : S-wallow-ING, Unit 5.2.

SWALLOW VOICE	
Sound Events	**TSUs**
Motifs A1, B1, B2, B3	Moving forward
Variations of B motif	---

Swallow Unit 5.2: The disjointed chirps from the previous unit continue, however, as they begin to occur more frequently, the fragments turn into motifs, and from there, into phrases. The dynamic rises along with motivic development. Here, the birds mostly sing on top of each other, creating a density both on the vertical and horizontal layers. They mostly sing against and on top of each other, rarely synchronizing with one another's singing. During this part, we also find compression in the formal domain, where three phases occur back to back, without a stop in between. The swallows are full of energy with a high level of drive, "moving forward". The three phrases are outlined in the figure below (Figure 4.112); each phrase ends with the clicking sound (B3 motif). At the end of the unit, both the swallows arrive at the clicking motif B3 at non-synchronous temporal occurrences. This unit forms the climax of the piece as it is

highest in dynamic and most dense in terms of counterpoint and formal structure. See swallow analysis, in Figure 4.112, and listen Sound example 4.112.

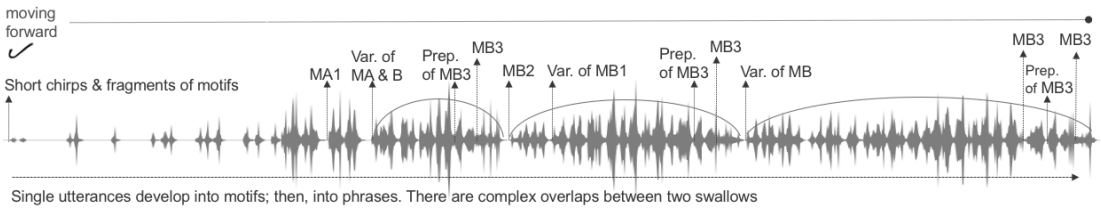

Figure 4.112 : Swallow Duo Unit 5.2 Analysis.

Similarity Response Unit 5.2: The resonance left from the ending of the previous unit leaks subtly into this unit. Here the response waits in order to bring focus on the fragmented chirps of swallows that will slowly begin to develop. After some time, response joins in by marking various gestures and points of the bird song with imitative behavior.

Here the response does not follow the swallow song in pure imitation, at times it entwines and synchronizes with the birdsong, however, mostly follows the overall motion trajectory of the phrase structure. The response moves in various forms of tension and release within the motion forward; it creates waves of growth rather than a single linear growth pattern. See similarity response in Figure 4.113 and listen Sound example 4.113.

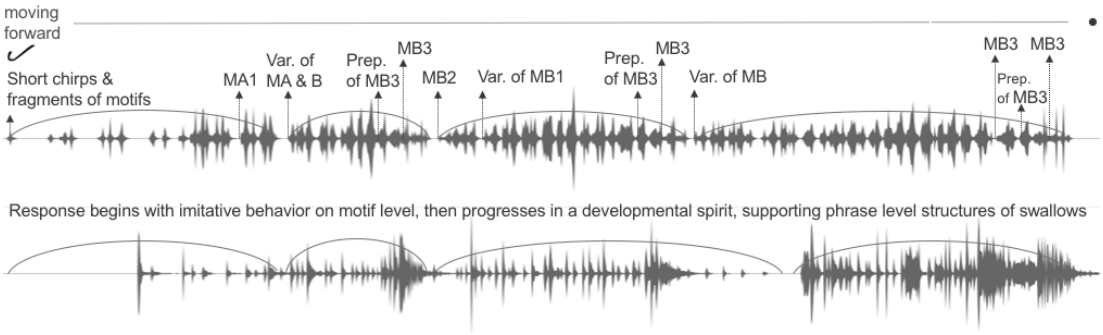

Figure 4.113 : Section 5, Unit 5.2, Similarity Response.

Difference Response Unit 5.2: The difference response begins together with the swallows in this unit. During this unit, the response is layered and continues activity in background, mid-ground and foreground levels. It does not have much activity in terms of temporal pace: it moves in a slower pace than that of the swallows, and follows pitch-based and cadential material along with a melodic slow-paced movement until the end of the section. And by such movement, it aims to foreground

the swallows' fast-paced, highly active, polyphonic song, sung in high-dynamics, accompanying and supporting it. The response comes to a complete resolution, leading to, and arriving at the beginning of section 6. See difference response in Figure 4.114 and listen Sound example 4.114.

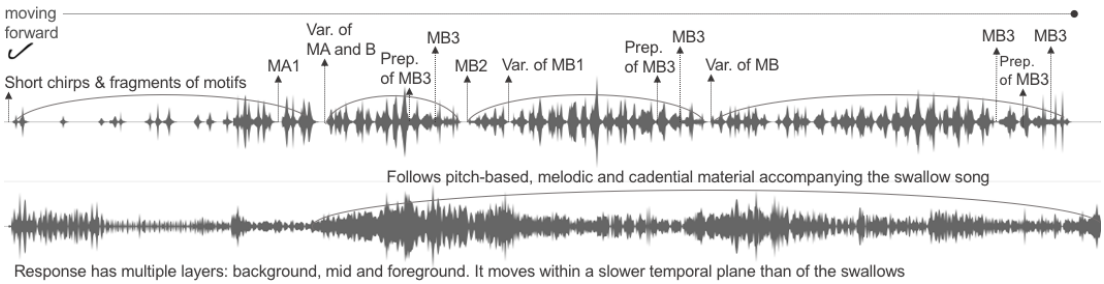

Figure 4.114 : Section 5, Unit 5.2, Difference Response.

4.3.4.6 S-wallow-ING: Section 6

Section 6 is between 3:00-3:34, and comprises two units. After the explosive energy drive from the previous unit, there is a brief silence. Unit 6.1 starts right after this silence with swallow 1, accompanied by swallow 2, wanting to continue the energy drive, and somewhat "wanting to start" again. Not being able to do so, the energy trajectory slowly gives way to "inertia" that leads into the second unit of the section. In the second section 6.2, the inertia continues; we observe a deceleration in the energy drive, leading to a final halt. See Figure 4.115 below; listen to Sound example 4.115.

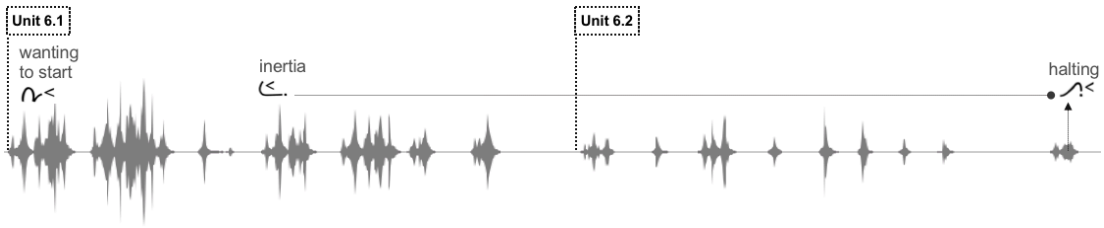

Figure 4.115 : Duo Swallow's Dawn Song; Section 6 Analysis.

Unit 6.1

Table 4.34 : S-wallow-ING, Unit 6.1.

SWALLOW VOICE	
Sound Events	**TSUs**
Motifs B2 & B1	Wanting to start
Variations of B motifs	Inertia
Single and double chirps	---

Swallow Unit 6.1: Swallow 1, attempts to pick-up the energy drive from the previous unit, however, in both of its attempts, it stops when swallow 2 enters. Later, the drive to move still exists, however, the dynamics fall and the motif begins to break down, and become undone. The second swallow takes a short flight, moving to a branch that is a bit more distant. See swallow analysis in Figure 4.116 and listen Sound example 4.116.

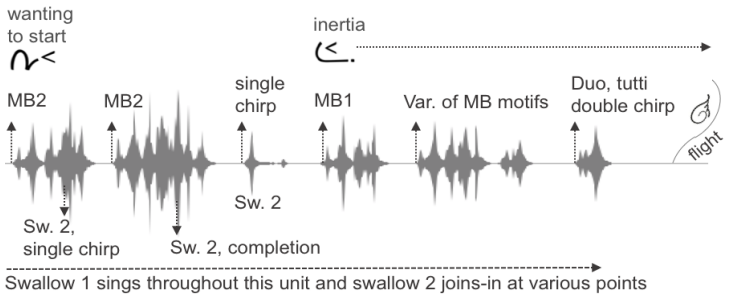

Figure 4.116 : Swallow Duo Unit 6.1 Analysis.

Similarity Response Unit 6.1: The response, recuperating from the previous units burst of energy, opens up space for swallows' song, with an intentional push of energy: "wanting to start". The response does not override the "inertia" of the swallows. However, at the end of the unit the response makes a short gesture that is intentional, and non-conclusive, creating a final notion of "wanting to start". See similarity response in Figure 4.117, and listen Sound example 4.117.

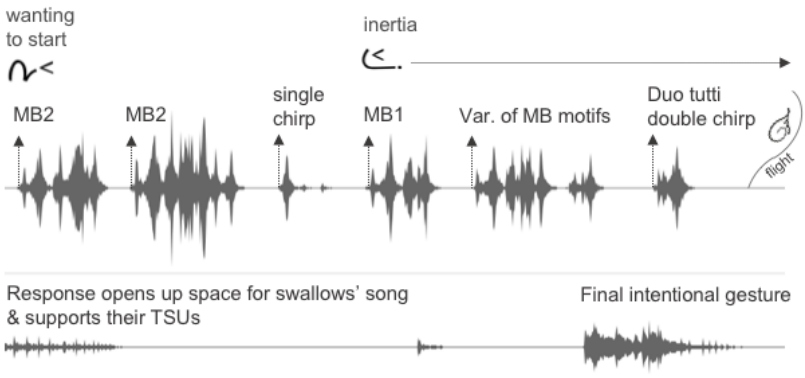

Figure 4.117 : Section 6, Unit 6.1, Similarity Response.

Difference Response Unit 6.1: The beginning of unit 6.1 is an arrival point for the difference response: the cadential movement comes to a final resolution. The difference response consists of a large and spacious plane, consisting of long tone-based resonances, that contrasts the close-up, short, chirp-based song of the swallows, and opens up space for them to surface. From within this space, the response gets into

a final dialogue with the swallow through sparse and somewhat scattered, short fluty tones. With the difference response, section 6 could be thought of as a coda, a tail that affirms a completion and an end. See difference response in Figure 4.118 and listen Sound example 4.118.

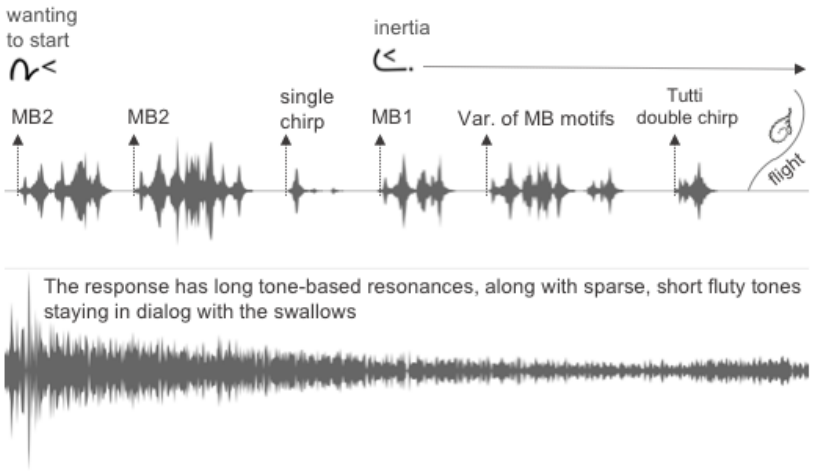

Figure 4.118 : Section 6, Unit 6.1, Difference Response.

Unit 6.2

Table 4.35 : S-wallow-ING, Unit 6.2.

SWALLOW VOICE	
Sound Events	**TSUs**
Fragments of motifs	Inertia
Single chirps	Halting

Swallow Unit 6.2: This unit comprises only swallow 2, singing in solo. The flight swallow 2 took in the previous unit, leads to this unit, where we hear her in a new spatial position; still on the left side of the panorama, yet more distant. The swallow utters fragments of motifs along with single chirps. There is a fall in dynamics, continuing "inertia", which leads to the end of the piece with a final, full "halting" gesture. See swallow analysis, in Figure 4.119 and listen Sound example 4.119.

Figure 4.119 : Swallow Duo Unit 6.2 Analysis.

Similarity Response Unit 6.2: The response opens up space for the swallow 2 to lead, just marking occasional articulations in its song. It supports the end of "inertia" that leads to the "halt" by preparing it with a final tone that glides down, which expresses an archetypical motion of closure. See similarity response in Figure 4.120 and listen Sound example 4.120.

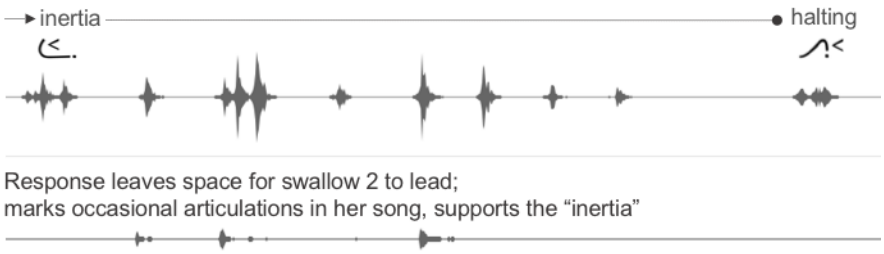

Figure 4.120 : Section 6, Unit 6.2, Similarity Response.

Difference Response Unit 6.2: The response continues with the same sound material as the previous unit. It remains in a background level of the com-position, making space for swallow 2, as to keep it on the surface and be a companion to it. In this unit, the difference response gets thinner in terms of texture and decreases in dynamics.

In this final unit, the response moves into a domain of noise (consisting of whooshing sound types that were performed in the beginning), and glitch-based electronics (happening in an intimate setting, in close proximity).

The response continues for some time after the swallows end. I had the feeling of wanting to keep on going, as if wanting to hear the rest of their song, touching upon the fact that in reality, they were still ongoing, and that this little segment of recording was in fact, just a fragment of the beginning of their day.

The response continues losing energy through slow and loose movements that are close up and intimate, until it fades into complete silence. See difference response in Figure 4.121 and listen Sound example 4.121.

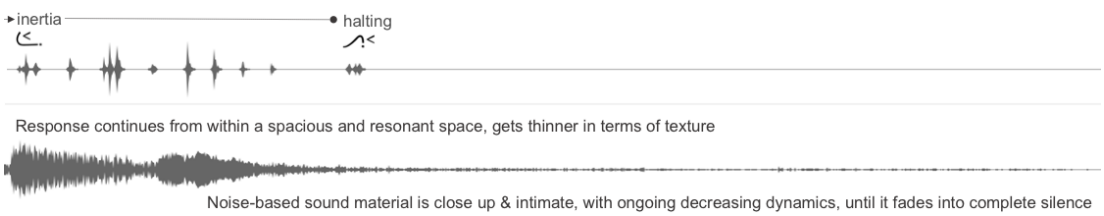

Figure 4.121 : Section 6, Unit 6.2, Difference Response.

Ending the analysis of unit six, brings the analysis and response sections of practice part of com-positions to an end. In the engagement with the swallows, I wanted to learn what could be known from our relations without getting prior information about them. I cannot help but think, how learning and understanding the world of swallows through ornithological and zoo musicological information would further contribute to my practice. My practice with the swallows, could keep on continuing, as I create another set of responses after learning more about them. As I give another set of responses with the swallows, a comparative practice might open up; one that investigates what arises from relations made with speculations and storying (com-posing with the swallows without prior information about them) as well as facts (com-posing with the swallows with already known set of facts regarding their songs, behavior etc). Comparing these differently informed responses, could feed into each other, and in return might affect contextual, methodological approaches of the model as well as the larger aesthetical implications, which would contribute to the relational understanding created with these agents. A sea of other possibilities remains in the air to be explored in further studies.

With the next and final chapter, I take in hand the 1) differences and similarities between the two com-position processes; 2) evaluate the results, looking into the nature and problems in my practice; 3) consider other ways to realize the RC practice; and finally, 4) reflect on what and how the RC practice might contribute to larger body of shared information.

5. CONCLUSIONS

In "Towards a Response-Able Com-Position Practice: Entangling with Humans, More-Than-Humans and Materials", I demonstrated a contextual plane for a response-able com-position model, and an exemplary practice in which it may be realized.

In this final chapter, I discuss the nature, findings and problems of my RC practice. I look into various parameters and explain how the RC relationality informed my experience of listening, performing and composing; and how these in return, fed-back to, and shaped the RC practice. Together with these, I ask: How might it have done differently? and muse on what other possibilities might be in store for the RC practice as next steps. With the following section, I reflect on the process of two com-positions.

5.1 Postlude for Com-positions

The two com-positions presented in the previous chapter, display artistic and analytical approaches to response-able sounding relations within the RC practice. I illustrated a socio-sonic possibility arrived-at through my own practice, and explained various means that have guided my choices in com-posing with another human (Sumru Ağıryürüyen), two birds (swallows), and materials (piano and series of material things). The two com-positional processes express complex workings of sonic relations realized through conceptual and practice-based processes. Working with two different acousmatic agents (Sumru and swallows) required different modes of thinking and engaging. I begin by briefly comparing the two com-position processes through a general overview, and later with section 5.1.2, I look into how the differences and similarities between practices shaped and contributed to the RC practice.

5.1.1 A brief comparative overview on the process of two com-positions

In this section, I go over some similarities and differences in my engagement process with Sumru and two swallows; and briefly evaluate how these have informed and shaped my practice.

Sumru and the two swallows use their voices; therefore, all three agents sound from within the sonic surface of our shared sound space. Having the agents on the sonic surface of the com-position habitat, provided a generous spectrum of bandwidth for me to move and explore various relational possibilities until I stumbled upon a point where I begin overpowering their voices. And so, having a large enough space for exploring various spectrums and boundaries in our relations, enabled a ground for me to experiment in a playful, attentive and negotiative practice, which in return facilitated and allowed me to be more in-tune to pursuing a "polite" practice.

On another note, because all three acousmatic agents use their voice, they share a sonic expression that is tied to breathing, which shapes temporal limitation of sound events. This in return, holds possibility for gestural implications. And as my RC practice is mainly driven by movements and their trajectories, this facilitated forms of entrainment in my listening and performing. I found that the entrainment not only functioned on a level of abstract musical thinking, but also emerged as physical responses, effecting my breathing, movements, and influencing my performance. The notion of bodily entrainment was something I especially experienced in the process of responding with Sumru. At various points in her singing, I realized that I was breathing and moving, synchronously with her breathing, and sonic gestural expressions. As I performed by being attuned to entraining with shapes of sonic motions expressed by her voice, my movement, listening, interpretation and mode of play, was all informed and effected, forming motion companionship.

Although both agents use voice, Sumru and swallows have very different sonic approaches from one another. Sumru's voice is very versatile; she uses a wide range of sound types, which entails a variety of timbral characteristics, frequency range and dynamic range. And her singing includes both sound-based and tone-based approaches, swaying between pitch and noise. Her singing is non-repetitive, and developmental. The swallows' singing on the other hand, use a more limited variety of sound types with limited timbral characteristics, frequency and dynamic range. The swallows' singing employ mainly a tone-based approach, that is based in motivic expression. Their singing comprises of repetitive use of motifs with subtle variations. These differences between the agents' sound type and behavior, allowed me to work in a plastic manner, and to test the application of the tools (TSUs and similarity/difference response) and their functioning within the RC practice.

I explored a relational plane in looking for plastic ways to form contact zones between differences by musical abstraction and metaphorical thinking provided by these tools. Working these tools that allow a loose-enough yet systematic-enough plane to work with, provided an inclusive and coherent ground for my practice, and afforded me to work with the versatility of sonic expression of Sumru and swallows. The sonic thinking they afforded —as they limit and guide the focus, creating coherence within the practice— allowed me to bring the concepts, theories, and practice together, within a shared multivalent socio-sonic plane.

Although the differences between sonic expressions of the agents did not dismantle the RC practice, the way the tools functioned throughout the two com-position processes were different. Compared to Quest(ion)s, where there is a wide variety of sonic expressions that are progressive, in S-wallow-ING, there is a limited number of motifs and a repetitive use of expression with subtle variations; this required me to lean more into a metaphorical and abstract interpretation of the tools. Therefore, the tools end up functioning differently with different agents' sonic expressions. I did end up stretching some meanings and applications of both the similarity/difference and the TSUs.

With the similarity and difference responses, as explained earlier in the dissertation, my response process does not aim to exactly pin down, interpret and represent what an ideal similarity or difference response would be as to leave space for chance and discovery in the real-time bodily thinking process. Therefore, the boundaries between two responses are not static, crystal clear separations, both might exist in different levels within one another. Especially when realized in practice, the tightly knit boundaries of the two thought-universes loosen up; in the end, both acts become forms of relating in difference. And so, the boundaries between the similarity/difference were quite plastic, there was quite a lot of oscillation between the clarity and blurriness of boundaries. As of TSUs, although my interpretations initially appeared different and slightly different from the shapes of TSUs when applied in different contexts and sonic structures, I paid careful attention to maintain the effect and semantic significance of these TSUs. As explained in its related section, this does not go against the grain of the application of TSUs (see Delalande, 1996, p. 18).

As a result of plasticity of tools and my applications, although these tools provide a level of coherence by offering repeated structures in the practice, they could not be

applied the same way within different sonic habitats. As a consequence, an absolute comparative study of com-positions with two different agents with very different sound expressions, —as in my examples— could not be done. The way the tools work, generate common threads through practices as well as cuts and create contradictions; they make possible, a plane to learn making-with in response-ability, always in negotiation within the relational sonic habitat. And of course, with each visit of a new agent, there will always be a new set of things to consider. The more one works with different and versatile agents, the more questions are going to arise, feeding back into the present RC model pointing out more problems and fruitful acts offered by the practice.

Now let us move into the differences that emerged in the initial stage of my engagement with Sumru and Swallows. With Sumru, there is a shared understanding of making and listening to sound i.e. shared understanding of music; this doesn't exist between the swallows and I. In Quest(ion)s, the initial encounter I had with Sumru was to invite her to com-pose with me. In S-wallow-ING, there was not much interaction per se between me and swallows, as our initial encounter was a real-time witnessing; which was me witnessing them. As a next step with Sumru, as she accepted to com-pose with me, I provided her with the TSUs to function as companions for her singing. Therefore, her improvisation initially became a response to my invitation, and she responded by acknowledging to share a sonic musical habitat with me. On top of this, the TSUs functioned to provide a common and shared ground of focus that informed both of us as we responded to one other.

With the swallows, there wasn't a shared sonic thinking that guided us (like the TSUs with Sumru), in our initial encounter; the swallows were singing in a world "without me". However, in this case with swallows, there were two agents; and they were singing as a duet, singing to and with one another. Listening and interpreting the types of sonic relations they had with one another, functioned as a template for me to build a shared plane for sonic relationality. As a consequence of all these parameters with swallows —an abstract interpretation of the tools, not having a shared understanding of "music", their songs not carrying a response to me, listening into their relations with one another to find relational contact zones—, inevitably I fabulated more as I interpreted the sounds of these swallows, bringing freedom and playfulness into my practice.

And finally, I was a part of the recording process with swallows; and although the process was not an interactive one, my first encounter with them occurred in a shared time-space as I myself recorded as an act of witnessing the voices of the swallows. With the case of Sumru, as I wasn't a part of the recording process, my initially encounter with her sound world was an acousmatic encounter; when I listened to the sound recording she had sent me. In the end, I ended up with two sound recordings from these agents: the recording made by Sumru as her response to me, and the recording of swallows made by me, witnessing them. In working with these recordings, I kept the recording "as is" within Sumru's case, because it was a complete response she had created as a response for me to com-pose together. Consequently, I did not apply any processing to her improvisation other than minutely extending the silences that occur in her singing. However, with my engagement with the swallows, as their singing did not carry a response to me, and that I myself made the recording, recording was a snapshot of me witnessing their song. This gave me freedom in editing the recording —and still remain in a zone of a "polite" inquiry— resulting in a foreshortening response (as explained in Section 4.3.2).

My engagement with each agent led me to consider various issues tied to power and vulnerability in our relations, causing me to constantly negotiate my positions and choices throughout my practice; which allowed me to investigate possibilities for response-abilities. Now that some of the apparent and discernible differences between the two com-positions are pointed out in a brief overview, let us go into a more in-depth evaluation, looking into some main issues in a subtler manner.

5.1.2 Reflections and evaluations on the process of two com-positions

I investigated various relations through two com-positions, where I engaged with sounds, people, more-than-humans, materials, selves, contexts and tools. And, the nature of artistic research entails, my practice brought with it a set of questions, doubts, confusions, hesitations, shortcomings and problems that change the practice and process throughout my research. And so, throughout my practice, as I was asking, how can I make this work? The answers fed-back into, and re-shaped the answers to the main question: What does it mean for this practice model to "work"?

Within the constraints of this dissertation, I evaluate the "working" of the model through following questions: Does it offer a social, embodied and networked practice?

Does the practice provide a structured-enough and a free-enough ground to work generatively in exploring socio-sonic relations? Does the model offer a practice that is generative-enough to explore multiplicities, and yet produce a particular-enough result to say something from within these generated experiences? Does the practice afford "going visiting" a variety of agents that have different sonic expressions from one another? Does the model afford to cultivate, and furthermore facilitate a "polite" practice? Does it provide a set of tools and acts for the self to explore possible response-able positions through multiplicities in listening, performing and composition in tracing coherent strands of thought? And do all these parameters, in the end, contribute to cultivation of response-able listening, performing and composition in engagements with others? Let us look into various perspectives and methods of the practice, evaluating them under the light of these questions.

During my practice, one of the first difficulties that I was faced with was describing various tactile and movement-based sound experiences that occur in my performance, using language. The writings of these experiences were challenged by losing some of their content (if not all), in the translation. Derek Bailey (avant-garde guitarist and pioneer improvisor in free improvisation scene) points to this issue in his own experience of writing his seminal book "Improvisation: Its Nature and Practice in Music" (1992). He states:

> Turning once again from improvising to writing about improvisation was done reluctantly; they are very different activities, it seems to me, and not always compatible. (Bailey, 1992, p.7, my emphasis)

As Bailey points out, there is a compatibility issue in switching between modalities; in his case, between improvising (which is about the immediacy of tactile and moving body, in relation with sounds, creating real-time sound organization) and the writing about it. So, I was faced with the question, how can I write the body into text? Finding an accurate-enough language to describe what is produced by real-time sound organization that is created through the immediacy of senses and the experiences of them, entails a double articulation. I found that in order to talk about my performance process, and draw possible relations between it and descriptive/evaluative process of language, there is always a need to cut; that is to say, to lose some content along the translation. The cut is needed in order to be able to draw connections, which inevitably leads to performing a cutting-together-apart.

I found that the rehearsal-based practice played a crucial role in this matter, as I played, evaluated, re-played, re-evaluated through a recursive practice. The rehearsals allowed an active back and forth relation of feedback between two modes of thinking: the tactile and moving body organizing sound in real-time (direct responses, expressed in immediate time), and contemplative body (uses language, is indirect, evaluations, occur within longer periods of time).

And on top of this, I have found that expressing my process through an autoethnographic language carried another form of difficulty. Although I try to make my thoughts and processes as explicit as possible, because of what does not absolutely translate, a lot is actually left unsaid. This requires from the perceiver, a reading (or perhaps a storying), between the lines of what is expressed. Following the aim to fill in these gaps, my initial tendency was to go into as many technical details as possible to ground the results and to find expressions for rigorous systematizations; however, this didn't prove to be much meaningful. Going into the detailed description of technical results arrived through (an inevitably occurring) reduced listening, followed with detailed readings of spectrograms, and tracing the finitude of temporal and morphological developments missed the aurally perceived musical experience. On the other hand, talking about details and specificities of felt experience of my body and intuition, again fell short; 1) either by the fact that even the simplest experience could be expressed in a detailed manner, spanning for pages, leaving the reader with an abundance of information or, 2) because the complexity of the experience is difficult to express in language. Therefore, I tried to stay away from using highly clinical/sterile or highly intuitive expressions of the process, bumping into both along the way. My exploration with Quest(ion)s and S-wallow-ING, as presented above, is only one approach and possibility for an expression of the process. A sea of other possibilities remains in the air to be explored in further works.

Another issue I came across during my practice was the change that occurred in the way I understood and interpreted the similarity and difference responses. Although the similarity/difference responses provided a structured, yet free-enough space to generatively and playfully create, doesn't mean the self can afford to do so. In my experience, as I constantly fell into either complete pedantic control mode, or highly intuitive and sensual expression mode, the tools did in the end, function in aiding to

balance my posture, as they reminded me to adopt their affordances and adapt myself to their affordances.

When I first started to respond with the similarity layer, I realized I was approaching the similarity parameters too literal, imbuing the com-position with mainly with mimicry and imitation. I was trying to reproduce a similarity response by trying to mirror the sounds of Sumru. By the time I came to section B, I began moving away from reproducing a similarity response in a literal way. By moving beyond the mode of mere reproduction, an important element in the relationality within my com-position process opened up: figuring responses through modes of generative and creative interpretation, using metaphorical and abstracted ways of expressing similarity. This form of relationality where I constantly move in and out of both direct imitation and indirect/interpretive responses, I found, appealed to me aesthetically, as it led to what I personally considered a more authentic and interesting response. Consequently, throughout the rest of my practice, I fostered this mindset for the relations created in similarity responses.

In the relational process of S-wallow-ING, I lean more into speculation and fabulation than I did in Quest(ion)s, as there is a much larger gap between me and the swallows' meaning making mechanisms of understanding and making sound. In this process, I imagined their world without me, and traced paths to a sonic habitat that might hold all three of us. As I became entangled within a relational network with the swallows, and lean into the field of storying, I felt a freedom for playful exploration much more so than in Quest(ion)s. In this playful interaction, I found that I trusted more in the immediacy of my responses, my intuition, and what is felt in my body as reflexes, movements and thoughts. I especially found that this playfulness expressed itself more freely within the process of generating the difference responses. Although, inevitably forms of close entrainment arose in the response process, I found that, at moments, I avoided tight relational zones and create a dissimilar form of differential thinking than that of the com-position Quest(ion)s. In the difference response, rather than clinging on the details of sonic relation through a tight contrapuntal thinking by close-tracking of repetitive motifs, I tuned into an overall flow of movements through larger temporal and dynamic unfolding of expression. This, in return, brought with it an awareness of entraining with swallows on a more abstract musical level, and through longer chunks

of time; together with this, it allowed me to constantly tune-in to the sonic habitat that holds and glues us together.

Next let us look into the performance process. Tracing the borders of what is and not possible, investigating the physical, gestural, behavioral and sonic limits of my body, the instruments body, and our relation, was another challenge in my practice. The challenge lied therein the fallibility of our bodies during the performance. It required staying with moments where the performance falls at one bit, and picks itself at another, celebrating the imperfection of a performance situation. Repetitions in my performance during my rehearsals, brought something new to consider into the process of thinking with sound, because the performance constantly changes and moves; it is always different. Such intimacy with the fallibility of bodies (mine and contingent instruments'), brought up a different form of virtuosity than the ones I was accustomed with. Working with contingency, entailed a highly networked and informed form of virtuosity that requires recognizing the sweet spots of tension (between unstable, indeterminate and predictable, stable) and acting upon them in the immediacy of time; most importantly to do this in a constant response mode, without falling into a control mode. Such a practice brings with it the notion of being interested in failure, as the performance process easily spirals out of a flow state, inevitably creating unexpected events and mistakes.

Either by the sidetracking that happens in performance due to the relation with the contingent instrument, or mistakes I make during the performance, were places I found resistance in my practice at first. But as the practice continued, I learned to be more generous and attentive about what appears in the moments of relation where intended or unintended events unfold. I began observing mistakes, together with the moments that click easily, and everything in between that the body gleans throughout the process; they all live imperfectly and impermanently. Observing the whole of the sonic experience with attentiveness and care, I try to respond back to these events within a field of a continual generative response, in a more flexible and plastic manner. In working together with "mistakes" caused by fallibility of bodies, I began finding moments of letting go previous ideas about what should or might happen, and find moments of value and aesthetic pleasure in sweet spots of not overdetermining nor underdetermining what is to come. Such states heightened my mode of listening and performing which in the end helped me to constantly tune-in with moments of

response-ability. Welcoming imperfection in such way, offered a plane for "staying with the trouble". On top of this, the uncertainty and non-resolution feed the momentum for movement and play throughout my practice, which allowed an opening up of capacities and response-able actions for interactions where the self is always in connection to self-reflective questioning throughout poietic experience.

The performing on the "edge" caused by the fallibility and unpredictability of the instrument/instrumentalist brings out an energy inherent within the immediacy of listening, and one of the incentives of my practice is to carry that energy into the music making process, and hopefully within the com-posed piece itself. I believe some of these moments could be heard within various points in the com-positions. One such point, could be heard and observed is in the highly active B-2d similarity response of Quest(ion)s (Sound example 4.35**)**, where the performance was challenged by the fast-paced events and in keeping the relationality, imbuing the music with energy and livelihood.

With S-wallow-ING in particular, as I leaned into a generative and experimental mode of play, I experienced a strong shift from a reactive state to a responsive one, where I constantly found myself thinking: What may I offer and give next, to the shared sonic habitat, rather than trying to pin down and control outcomes. This mindset is hand in hand with what the saxophonist and composer of jazz and experimental music, Tracy McMullen (2014) calls, the "improvisative". McMullen calls explains that the "improvisative",

> [is] a lean toward the subject in that the matter of concern is how one can give, not in how the other or the object may take: giving defuses the preoccupation with self as it is constructed by and as another. (McMullen, 2014, p. 366, my emphasis)

She states that the "improvisative" thinking could be the way in which the binary split between the self and the other could be softened, paving way for more engaged, empathic practices. I found that, especially the distance between me and swallows (belonging to different species), made me more prone and sensitive to a "improvisative" and "polite" practice. In the end, the distance of a shared understanding of sound between me and swallows, paradoxically created a heightened sensitivity that facilitated, means for response-able practice.

As mentioned earlier in the dissertation, one other challenge of the practice is to work through the modality shifts, because of the cutting-together-apart that happens during the switch. Because of what does not translate from one mode of production to the other, the self ends up generating multiple possibilities. However, working with different layers of thinking (listening, tactile information, movement, contemplating with words) constantly cutting-together-apart, functioned to produce connectible ends that had potential to create new connections; breaking one-way and top-down informational and relational systems.

It is a difficult practice to surpass one's own habitual reactions and pre-learned responses; and so, throughout the process, the likes/dislikes along with judgements about self, the other, the processes and results inevitably emerge. The switch of modalities in the end, —as it offered a massive exercise on listening/thinking— allowed me to find moments of decentering in the com-position process, affording a plane for me to break my own habitual ways of thinking and engaging. In the end, it could be said that the whole practice takes place within an intimate theater of listening; always relational, always actively staying within the act of listening-back through tension of multivalence and reliance on processualism, with a sense of wonder to make-with the other. And so, as I kept observing, questioning and generating different responses, I got to explore unknown territories (for me), to trace and observe engagement possibilities in processual movement.

And finally, although the generative and multivalent process, is very important for the practice, as it embraces generating for the sake of generating (that allows learning to live through a response-able practice), the goal is to always have a double articulation. The double of this is to generate to say and present something (producing a situated result). By producing and presenting a "work", the practice says something from somewhere, which avoids a relativist posture that says everything from everywhere and consequently, nothing at once.

In the end, the more I worked in pursuit of a RC practice, the more I got to know about my own capacities and preferences of listening, as well as my own habitual responses and inclinations, I experienced moments of moving beyond what I am accustomed to. Circling back in on Deleuze's understanding the application and actualization of thought and concepts, Claire Colebrook (cultural theorist, philosopher, women, sexuality and gender scholar), explains:

> Philosophy, for Deleuze, was not about creating correct pictures or theories of life, but transforming life. Philosophy is not something we apply to life. By thinking differently, we create ourselves anew, no longer accepting already created and accepted values and assumptions. We destroy common sense and who we are in order to become. (Colebrook, 2002, p. xvii)

Learning more about my own inclinations and finding moments of moving outside what I was accustomed to, allowed me to pursue an intra-active practice, where the self learns to become from within its socio-sonic relations. The practice allowed me to unfold aspects within me I didn't know I had, as it caused me to walk on the edge of daring, and at the edge of my own capacities. In the end, it did very interesting work on me while I was making it.

To do justice to the complex web of relational sounding possibilities of com-position processes require immense responsibility, not to mention that the attempt will always remain inadequate as it is inevitably an un-finalizable, and processual activity in nature. As the nature of the RC practice propels a disclosed, non-fixed research and compositional strategy, the primary goal is not for finding a finalized answer to questions tackling these issues, but to engage with, and live through these issues, topics and questions, helping them flourish within the self and its process of engaging with sounding others.

Therefore, the complex and semi-mapped plane of the RC practice model offers a practice for human participants to learn to navigate within it, in constant participatory response; exploring possible relational consequences of their actions through a socio-sonic framework. With this dissertation, I aimed to create connectible ends, offering a working and workable starting point to open up further dialogs. Although there is still a lot to be uncovered about this process, I believe it carries potential to cultivate human capacities for complex ecologies of relations within multivalent, socio-musical interactions. With the next section, I elaborate on other possible applications and implications of what this model and practice could offer for further practices and studies.

5.2 Points of Departure: What Might Be Next?

In this section, I reflect on some other possible structures and applications for the RC model. Within the specifity of this dissertation, I have worked through, 1) my own body, with its particular set of aural, embodied engagements in exploring a possible RC practice, and did not experiment what other bodies would produce; 2) I worked with acousmatic agents within recorded sounds (fixed media) and 3) a tool based-on motion and behavior (TSUs), together with similarity/difference response models for interpreting sonic expressions and forming relational contact zones; and 4) I worked through an embodied performative practice with material agency through contingency. Each of these parameters could be changed and altered. Next, I will reflect on some possibilities where these parameters might be changed, what they might produce, together with some other lines of thought.

1) Within this dissertation, I practiced the RC model through the particularities of my own body, its consciousness, experiences and reflections, and did not test or observe the practice on other bodies. In the end, the practice-based research is a study of one's own practices in dialogue with a series of well-established set of concepts, theories and knowledges. And with the RC practice, I seek to understand the relations between the two within a wider sociocultural context. As a next step, I am interested to observe how this practice would unfold in other bodies; and to make and trace network of connections, which might further contribute to larger socio-sonic perspectives.

The RC model is interested in situated practices/knowledges produced by particular bodies, views, and lived experiences that sound from a spectrum of places in a certain way, and not from and in others. By making/breaking connections between different processes and results produced from different bodies, I am interested in creating a relational network of joining partial information. As Haraway states, in the act of "joining of partial views" that are tied to specific bodies, time and space; lies the potential for contributing to collective multivalent formations that inform larger socio-musical contexts.

Therefore, how and what other selves com-pose; how and what the outcomes of these would propose; how sound comes to sound through response-able practices are going to be important for the larger situating of the model. By drawing network of relations between each process and the results produced by bodies, we could understand various

capacities and limitations of the model, which might result in in modifying, changing and/or replacing various set of parameters of the practice. This is something the RC practice model affords to do so, as it has been formed as an open-form and adaptable structure that could undergo change through experiences of different bodies.

The model is not to be read and practiced through a scriptural mode of practice; and does not function as a generalizable code of conduct. Rather it is based on a set of parameters that are open enough to be situated and adapted by other bodies, yet coherent enough to be tracing differences within processes and results. The RC practice affords working with the speculative as well as the fact, the incomplete as well as the complete, the qualitative as well as the quantitative, subjective as well as objective; suggesting a holistic kind of sonic engagement, an open system that is always relational and in flux. This means that other individuals can adapt and/or adopt various processes of the model, while keeping their own style and aesthetic preferences, as well as making their own choices that would naturally diverge from what I do in this particular research. As a model that aims to spark questions throughout the process, each body must ask its own questions, make its own rules and therefore would represent an alternative realization for the RC model. This way, the practice will always take new forms and situate the practice further with each specific body that undertakes it; which in return, carry potential to contribute to diverse fields of knowledge and other ecologies of relational response-able practices, and to explore new multivalent planes of movement and interaction.

2) Next let us look into fruitful sides as well as what could be considered problematic reductions of working with acousmatic agents in fixed media. As I reiteratively asked the question: How do I populate a sonic habitat that already exists without me, and to do this "politely"?

Working with fixed media creates somewhat of a controlled environment, which has up sides and down sides. The down side of it is that the agents cannot respond back to me in real-time. Therefore, the self is mostly in one's own world, figuring and fabulating possibilities of co-habitation and intra-active becoming, with the pursuit of what could be known through the interaction at hand. A field I am keen in exploring in further studies is a real-time improvisation process between the self and agents; which would allow exploring possibilities of the RC practice in real-time, dialogic, intra-active practice where an immediate feedback loop is involved.

The up side of working with acousmatic agents it that this setup allows a highly contemplative state for practicing cultivating response-abilities. This position constantly reminds the self the notion that the sounding space does not solely belong to you, and that you are one of the participants in the socio-sonic habitat; and that if the self has the other, the other has the self. It reminds the self that the self might be misunderstanding and misinterpreting many things throughout the process. So, the self learns to stay in a practice where it constantly participates in a dance of figuring: how do I move in relation to something fixed? And to do this "politely"? This posture allows the self to generatively, creatively and fabulatively figure various connectible ends to join-in; and through series of failures and successful connections, one figures musical spaces that could contain a sound of "us". This offers a valuable experience, as it contributes to learn sounding-with response-ability in a shared world of difference.

There is a vast possibility of other ways to works with acousmatic recordings. One immediate idea that comes to mind is that, today due to various forms of media, we are somewhat accustomed to discrepancies of time and space through zapping, fast edits and cuts, as well as close-ups. We are used to sound, words and actions that are chopped up, re-edited, re-assembled and re-placed in nonlinear time, somewhat fragmenting the representation of bodies. I cannot help but wonder what would happen if I didn't work with the literal existence of acousmatic agents "as they are", in the recording, but would interpret their sounds, by highlighting what I hear in them, after I have responded to them. What would happen if I respond through the residues of our interaction, where I rely on my memory and the affective traces they have had on me, by applying various processing to their acousmatic presence, such as ones presented above? What would happen to the understanding of their body, and presence, to my thinking and acting, and our shared sonic habitat? The next step of the research could venture off and explore what this process might offer. This would require a much more difficult practice of "polite"ness, where new parameters might need to be considered, and tools to be developed, in order to attend and negotiate the boundaries and possible spectrums of relations within the sonic habitat.

3) Next, let us take in hand working with TSUs. TSUs proved to be a fruitful tool in guiding me to explore response-able interactions with others. However, as I am interested in energy trajectories of motion and bodies, as a next step, I can couple the

TSUs together with other series of gesture and behavior models in order to form a more expanded vocabulary for sonic movement. As I stretched some meanings and interpretations of TSUs during my practice, I felt the need to have a larger bucket of motion-behaviors, to think with. On the other side of the medallion, throughout the practice, I also asked what might have happened if I worked with restricting everything to the limited set of TSUs and gestures. What would have happened if I have talked about and predefined TSUs together with Sumru? Where we selected particular ones to work with. This would have surely resulted in creating a more focused, and shared understanding of symbolic and metaphorical meanings of these movements and gestures. I believe this would allow me to explore and trace idiosyncrasies of agents in a more focused thread that enables coherence; which in return, might contribute to facilitate joining-partial views in collective networks. And this joining-in need not be only in the domain of sound.

The RC practice affords to be adapted to interdisciplinary field of studies where sounding practices could meet dance, visual art, audiovisual and other wide variety of multimedia works. The TSUs afford visual analysis, and as dance is a visual, aural, time-based art form, the model at hand directly could be applied to responding with a dancer. The same, of course, could be adapted to working with other multimedia formats, like movies that produce both visual and sound-based temporally bound forms of art, as well as systems of artificial intelligence etc. On the other hand, art works that are non-time based and non-moving could be considered as well: interpreting photographs, pictures, scenes, sculptures etc. and interpreting various motion trajectories and textures within them, that could evoke responses etc. Therefore, an extended version of this study could go into an interdisciplinary approach where tracking of movement and energy motions could be the tools for interdisciplinary connections.

On the other hand, TSUs might be used to provide accessibility for listeners. Although the matter of accessibility is not the initial goal of the dissertation, accessibility without popularization is of interest for me. The topic of accessibility is not discussed within the confines of this dissertation, and will be explored in further studies. However, the energy-motion trajectories offer uniform, almost archetypical, symbol-like categorizations of temporal units of sound, and do provide the listeners with a factor to hold on to, which is a parameter that could be worked-with through the process.

Along with TSUs, the similarity and difference responses were fruitful guides in tracing relational contact zones between agents in the RC practice. And they could be used together with the TSUs as guides for interdisciplinary engagements as well as to provide the listeners something to hold on to factor. On the other hand, the two response models, could be understood and applied differently as well. For example, they could be pushed to extremes, defined with more strict parameters, where the self explores boundaries of similarity and difference, investigating what that could mean, and how different ways to describe them might contribute to the practice.

4) On another note, working with material agency with a contingent instrument allowed me to re-tune my relations with my instrument. Through a material agential practice, I re-acquainted myself with this sheer vibratory instrument, ringing, shaking, being in relation with my body. Therefore, my practices led into somewhat of a full-bodied vibratory experience, experienced through fallibility of bodies, which I then carried into the listening and thinking process of com-posing. Especially within the field of performance, there is so much more to explore here; which in itself could be a full dissertation.

And finally, I would like to point out to the pedagogical potential of the RC practice, as there is a pedagogy underlying the RC practice. Each stage within the RC practice invites the self to listen into relations with others, through bodies, and surroundings, finding connection to who/what we connect with, where we are within this space, what is being produced, and how. It offers theoretical stances as well as practical applications together with tools to realize a RC practice.

From this light, the RC model offers ways that serve cultivating the capacity to observe, attend, critic, monitor, negotiate, and decide about the self and its relational actions; and holding oneself accountable throughout the process. I believe that cultivating such practices of aural presences, have much to offer to musicians and music scholars whose many excitements and drives are built upon various forms of thinking and doing with sound.

Although I close some ends, I leave many of them open, as the nature and the aim of the study is to create connectible ends for rhizomatic relational possibilities that may pave way for practices of giving, caring, attending and nurturing differences within multivalent forms of co-habitation; always in relational socio-sonic creation.

5.3 An Epilogue for Connectible Ends

By drawing connections between various relational propositions within strands of social, feminist, new materialist theories with sonic practices, my incentive was to explore and offer alternatives for assumptions regarding centralized, de-socialized, isolated and dis-embodied sound practices. I aimed to cross a line, and make such crossing a workable, thinkable, adaptable and adoptable process for others to explore.

With the RC model, I formulated a socio-sonic practice that distances itself from the historically significant Eurogenetic art tradition of the 18th and 19th century: the cult of centralized, solitary, centralized, dis-embodied, isolated composer. With the RC model, I offer a practice that reads every act as relational, every relation happening with an active embodied agent, and propose a series of acts for multivalently centered practices that are in flux. By doing so, I look into the consequences of alternating perspectives, while entangling within relations with discourses, other agents and selves. I suggest embodied explorations for listening, performance and composing; where the practice relies on aural, sensory and movement-based forms of thinking and expression. In such process I seek insights during the making, through a "polite" and response-able practice that entails a knowing with and through, instead of knowing about.

With this practice, my intended contribution is to offer a socio-sonic model that reworks the musical poietic process through a lens of a response-able com-posing. The RC practice is about showing up to engage in socio-sonic relations with others; it is about caring enough to go visit, and being curious to join-in, and make something new together through a response-able posture. It is about learning to generate listening traits that are about noticing, giving attention and offering. It is about becoming an active spectator of one's own becoming; situated and entangled as a participant within a multivalent and shared socio-sonic habitat; tracing what is, and what might be. The process includes moving through unknown territories with unknown others, making mistakes and failing; and always recognizing that there is room for more.

The epistemological posture of the RC practice sheds light on sonic practices and discourses that are slowly emerging in our sonic discourses today which I believe have impact on shaping sound cultures socially, politically, and aesthetically. In the end, what our focus is, how this focus expands and limits our field of understanding sets

the scope of our scholarship; it defines us and what makes up our common record. The following questions: For whom the histories and discourses making up the common record being written for? How does our assumptions and the accepted norms shape and frame us? What practices do we accept and value? and consequently, what does that tell about us? are just a few connectible ends from a sea of matters to think about, as I end this dissertation.

There is still much to further explore, investigate and refine in the Response-able Composition model, yet I suggest that the strands of epistemological postures proposed within this dissertation have potential to cultivate aware, caring, thoughtful processes for learning to live and negotiate in a world of difference, offering recipes for opening up multivalent socio-sonic engagements, staying in relation and in movement; always together-apart.

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APPENDICES

APPENDIX A: Temporal Semiotic Units
APPENDIX B: Guiding Text for Improvising Musicians
APPENDIX C: All Links Provided for Audio and Visual Analysis within the Dissertation

APPENDIX A: Temporal Semiotic Units

Temporal Semiotic Units (TSU) were devised in 1992, at the Laboratoire Musique et Informatique de Marseille by a group of composers and visual artists. The study offers a systematic approach of drawing connections between energy-motion trajectories with music and/or visuals through figurative analogies. The units that have a specific morphological organization, linked to a semiotic meaning. They are categorized under two groups: temporally bounded and temporally unbounded. For more information about functioning of the TSUs in the dissertation, read Section 3.3.3.2. In the table A.1 given below, find the nineteen units with their various categories, and their original French terminology along with their English translations.

Table A.1 : Temporal Semiotic Units Chart, French Originals and Translations

Unités sémiotiques temporelles (UST)	
Invariants	
Invariants par répétition	Par vagues
	Qui tourne
	Obsessionnel
Invariants par stagnation	En suspension
	Stationnaire
	En flottement
Invariants par effet chaotique	Sans direction par divergence d'information
	Sans direction par excès d'information
Variants	
Variants à évolution uniforme	Qui avance
	Trajectoire inexorable
	Lourdeur
Variants à évolution contrariée	Sur l'erre
	Freinage
	Étirement
	Qui veut démarrer
Variants à équilibre rompu	Chute
	Élan
	Contracté-étendu
	Suspension-interrogation

Temporal Semiotic Units (TSU)	
Invariants – Temporarily Unbounded	
Invariant by Repetition	Wave-like (Moving in waves)
	Turning (Spinning)
	Obsessive
Invariant by Stagnation (lack of growth)	In Suspension (Suspended activity)
	Stationary (Stillness)
	Floating
Invariant by Chaotic Effect	Divergent (Having no direction because the information is too varied)
	Chaotic (Having no direction because there is too much information)
Variants – Temporarily Bounded	
Variant with a Uniform Development	Moving Forward
	Endless (Inexorable) trajectory
	Heaviness
Variant with a Thwarted Development	Fading Away (Inertia)
	Halting (Breaking)
	Stretching
	Wanting to start (Unassuaged)
Variant with a Disrupted Balance	Falling
	Momentum (Propulsion)
	Contraction-extension (Compressing-stretching out)
	Suspending-Questioning (Interrogation)

In the following section, the nineteen temporal semiotic units are explained in detail together with their morphological and semiotic meanings.

Temporally Bounded i.e. Time Delimited (Units lasting for a specific amount of time)

Temporally bounded units last between 1 to 5 seconds, they unfold within very short steps or phrases. The units that are limited by time are categorized as follows:

Momentum (Propulsion, Accumulative): Here the energy is swelling i.e. gathered and with an increasing trajectory is initiated and immediately released. The energy is being gathered prior to the initiation of impulse. It has three main phases morphologically:

1. Activating event, could be a sustained, having a slow iteration, or short sound; but most importantly uniform/homogeneous sound, with a sense of gathering and concentration, of energy prior to motion.
2. A brief increase in intensity of any morphological character, is the very first instant of the movement with clear one direction leading to:
3. Decreasing intensity like resonance or silence.

Semantically there is a feeling of a clear gathering and projection of energy at the beginning (either from a steady state or a force) that results in an accelerated motion resulting in an impulse of motion.

Moving forward (Propulsion): This is a one-phase unit that is defined by an uninterrupted propulsive drive. The feeling of being carried, pushed and pulled forwards at a regular pace, progressing purposefully. The movement could have regularly renewed, energy and direction. One phrase, repeated cell with no interruption, and usually contains an accent.

Semantically it gives the feeling of being purposefully pushed forward in a precise direction.

Falling: There is a suspension at the peak of event, with a sudden change in energy that is felt as kinetic energy, with a movement in pitch. This unit is comprised of two phases morphologically:

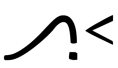
1. First phase is homogeneous, and uniform carrying a sense of suspension, even when there is movement within the substance matter.
2. Very brief and sharp transition of the morphology that either goes up or down in pitch in an accelerated movement.

Semantically, there is a feeling of losing of one's own balance, through a sudden change in the state of an equilibrium, that is apt to break. There is a loss of potential energy that turns into kinetic energy. The listener feels suspension or the potential energy that suddenly transforms into kinetic energy (only after this overturn of energy one, becomes aware of suspension). MIM researchers express that the suspension factor is realized after the unit is completed.

Stretching (Expansion): The unit has a single phase, a linear and slow growth of increasing energy of at least one morphological variable of sound. It expresses a process that achieves a topmost level of effort, a maximum of a process. The energy increases and process ends with the deformations of the sound.

Semantically the feeling of taking a process to its limits. There is a feeling of tension that arises from the pull and push of two opposing forces and the pressure is being used to make something longer and wider.

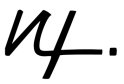
Halting (Breaking, conclusive): The unit has two phases. There is an already ongoing process that comes across another process which causes decrease of energy.



1. Globally uniform, homogeneous sound
2. By opposition goes under decelerated movement. Progressive and regular decrease of the energy.

Semantically there is a feeling of being forced to slow down or suddenly withheld causing a natural predictable end to the energy of sound, to stop.

Contraction-extension (Compressing stretching out, compressive-expansion-explosion): The unit has two contrasting phases. The sound material is compressed within local energy then suddenly stretches into a relaxed state, through the diffusion of the energy.



1. During the "compressing" phase, there is an increase in intensity, which could result in rapid events back to back or a dense texture. Has a localized energy. The sound is discontinuous and erratic.
2. The stretching out phase has a stable globally uniform energy. The localized energy of the compression phase acts scattered when released, usually with crescendo.

Semantically, first there is a feeling of compression (as if applying force like strongly pressing on an obstacle), then the barrier is suddenly overcome, resulting in release of resistance and power.

Suspension-interrogation (Suspending-questioning, hesitative): The unit is characterized by interruption of motion. It consists of two contrasting phases.

1. The phase is a brief phase, could incorporate any process however usually is characterized by varied and/or repeated sequence, that has either a static continuous state or clear evolution in one direction, without high drive in energy.
2. The second contrasting phase consists of a short pause or a short sustained and rising sound, usually having a decrescendo and/or silence.

The feeling of a movement that is interrupted while waiting within a fixed position, or evolving in a certain direction.

Inertia (Fading Away, slowing): A unit with a single phase and the process consists of a progressive declining of resonance, deceleration of movement and drowning of energy. There is a constant decrease in intensity or musical activity progressively and rapidly until dissolution, cessation, draining of energy supply.

Semantically MIM researches liken it to a sailing boats trajectory when sailing, even when there is no energy, it keeps on moving because of the momentum. It could be said that there are two somewhat opposite motions, going forward and holding back. However, there is no tension and it has a predictable arch until its non-existent.

Temporally Unbounded i.e. Non time delimited (Invariants; Units lasting for an unknown amount of time)

Temporally unbound units last for an undefined duration, they are defined by stable parameters and could be comprised of repeated cells. Some of these units have certain properties in common such as stillness or forms of repetition.

Heaviness: A unit characterized by slowly paced irregular lengths of cells that repeat. They may or not have strict identical patterns, there is a dissymmetry in the controlled repetition. Each cell has an accent and a crescendo at the beginning; these beginnings somewhat renew the drive of energy. Characterized by slow to moderate tempo.

Semantically although there is a driving energy, the slowness and the feeling of a sense of pull occurring vertically, like gravity, makes it difficult to advance.

Inexorable Trajectory (Endless trajectory): One phase unit, with a globally uniform, linear and usually slow evolution of a never-ending process where one or more variables in the sound's energy are renewed like, intensity, mass, timbre, pitch etc.

Semantically although it is usually directed towards a direction it never seems to come to an end. The MIM researchers point out that the "sound phenomenon must be long enough to be perceived as a process and not an ephemeral event.

Obsessive: One phase unit, that is a persistent pulsed event, and has a quick and insistent repetition; possibly, a varied repetition where each iteration renews its energy with a pulsated energy.

On the semantic level there is a feeling of being constrained by a mechanical, directed, autonomous, constant repeated process; in return does not allow us to act upon.

Wavelike (moving in waves): One phase unit that is characterized by a cyclical pattern of ebb and flow. There is a slow temporal pace of repetition that is made of an increasing and decreasing pattern. The increase and decrease could be applied to different morphological aspects within the sound, like pitch, dynamic, grain density etc. The pace is from slow to moderate.

There is a feeling of being pushed forward and pulled back, however with a sense of stableness despite the movement.

Turning (Spinning): One phase unit, in which one parameter like pitch, dynamics, and timbre of the sound is being driven by cyclic repetition. The cycles should vary in speed creating irregular paces of speeding up and slowing down. Dynamics function the same way as the cycles do; and there is usually a crescendo and an accent at the peak of crescendo, somewhat like a push at the end of each crescendo to keep turning and spinning.

There is a feeling of an animated object that is turning. Instead of moving forwards there is a feeling of being turned either like an object spinning itself or spinning in space.

Stationary (Stillness): This unit is characterized by a sense of continuity, a globally stable energy with a slow temporal evolution, without purpose or direction. It has a temporal regularity or permanency at a global scale. On the global level although it seems that nothing advances, constant internal activities may appear on other levels. These can include, at another scale, and could be random or pseudo random elements. MIM researchers define various configurations of how this activity could take place:

1. Random details within the global stillness. Here the detailed events could be diverse and almost random as well as in the form of repeated cells that are structured. Even if we can hear a pulse, no place is aimed and the time seems to stay always the same.
2. Cells that behave as slow cycles with little variety, slow tempo with permanent regularity.
3. Temporal structure and the evolutionary frame are barely altered or changed.

The feeling of something is happening, it is standing still as it does not go anywhere, and does not cause expectation. However, it is not as if one is waiting as there is a constant happening, that goes nowhere.

Wanting to start (Unassuaged, Inertial): There are various sounds, attempting to begin moving, trying to initiate motion. This unit is made of two repeated phases that carries a form of reiteration implying an effort to commence, initiate an action. The reiteration occurs is not same and varies each time.

1. First phase is relatively short and has a shape that is described as “articulate” by MIM researchers.
2. The second phase acts contrary to the first through one or more parameters of the sound, could be in forms of silence, suspension, holding back, pushing back etc.

There is a feeling of unease that is caused by the effort to initiate the flow action, however not succeeding in doing so.

Floating: Unit with slow temporal evolution that is characterized with short sounds that are irregular, random, temporary and disjointed (without a pattern) that flow lightly and airy continuously over a background layer. This continuum can be could be another layer, implied layer or just silence.

The feeling that the sound events are flowing continuously and the sound events appear and disappear without a pulse, on a smooth and even continuum; devoid of suspense and expectation.

In suspension (suspended activity): Hanging in expectation for an unknown event. This unit has a no or slow progression and has repeated cells that have no or very little variations implying a sense of just simply being, a form of floating in space without much action and a clear directionality.

There is a feeling of opposing tensions of equal strength have brought everything to a standstill. This implies not a relief but on the contrary a sense of waiting and expectation for something to happen within suspension, without knowing when or what will be happening.

Divergent (Without direction by divergence, entropic): The unit is comprised of short sound units or sequences that have little or no relation with one another. Having no direction because the information is too varied. These events do not overlap have different directions, and no apparent connection; however, exist in a globally uniform environment. The energy of motion is a potential energy that is not directed and expressed within one movement.

There is a feeling of indecision and general immobility caused by encountering too many possible directions with successive (not simultaneous) motion, including contradictory direction with no apparent connection.

Chaotic (Without direction by excess of information): The unit has an abundance of information by sound units or sequences that are not particularly related, could be contradictory and have various directionalities. There is no general directionality because of abundance of information, that have high mobility happening internally and possible simultaneously. The characteristic of this unit is that these events build in the texture, overlapping and layering one another creating dense environments.

There is a feeling of tension and confusion caused by encountering too many possible directions which results in indecisiveness and a lack of causality.

APPENDIX B: Guiding Text for Improvising Musicians

I have written an e-mail and called Sumru by phone, explaining briefly what my research is about, and asked if she would like to co-create with me by sending me recordings of her improvisations. She kindly accepted. The following text is what I have sent to her along with the TSUs given in Appendix A above.

ABOUT IMPROVISATIONS

Duration: One or several, 1 to 5 minutes of improvisations. If you have ones that are shorter or longer, this will also be fine. The limitation is to provide a loose point of reference.

Types of sounds: The main focus of my study is on a sound-based approach. This doesn't mean that tone and note-based sounds are excluded all together, but that they do not prevail throughout the piece. All sound-types, made with conventional or extended techniques are welcome. These could include various types of noise, tone, harmonicity, inharmonicity, forms of silence etc. it is all up to your interests and aesthetic preferences.

Working with Temporal Semiotic Units: The Temporal Semiotic Units (TSU) are motion-based energy/motion trajectories that provide morphological organization, together with a semiotic meaning. They are not to be applied in a scriptural, strict and absolute manner; they are here to be companions and play-mates for you. They are here to guide you to enter into a mode of kinetic exploration; you can interpret them literally or quite abstractly, it is really up to your interpretation of them. You can choose just one TSU and explore only that throughout your improvisation, or chose several TSUs to explore (they could be tied to one another fluidly with transitions, or be fragmentary undergoing sudden changes like a disjunct and abrupt collage). Please think of movement and gesture in all its forms and forces: ranging from extreme subtlety and gentleness, to radically applied and articulate. Motion trajectories could evolve very slowly where one gesture could take up all the piece, or could be very short, moving in sudden and a wide variety of motions. You can interpret and incorporate these however you wish to do so, the sky is the limit.

About Related Accompaniment Words: At the beginning or end of each piece, depending on how you would prefer to work, I ask for a recording that consists of some words that are related to your improvisation. These words could be inspirations, reflections, ideas and comments about the improvisation. They could consist of a single/multiple keyword(s) or fully constructed sentences; and could describe whatever you want to express about your improvisation. The intelligibility of each word, where they are clearly spoken is important for me; because I will be inspired by these words in my interpretive process. You could utter them however you wish to do so, for example, they could carry emotional content with subtle or articulate intonations, could be whispered/yelled, or be plain as possible, it is all up to you.

I hope you have fun!

APPENDIX C: All Links Provided for Audio and Visual Analysis within the Dissertation

Below find all the URLs that were provided as audio, figure or video analysis in relation to the practice part of the research. The first URL is the online exposition accompanying the dissertation. Each following URL links to parts of analysis, and therefore are given together with the Figure number as presented within the dissertation. For example, if Figure number of sound presentations is named Figure 4.1, the associated sound file is named Sound example 4.1. The reason for this is to make it easier for the reader to trace and navigate examples within the dissertation.

The Research Catalogue online exposition: This online exposition is connected with my dissertation. It provides an accompaniment and condensed form of information. It illustrates various media providing brief explanations of terms, processes, tools, graphics, sound and video files: https://www.researchcatalogue.net/shared/4ddf8ef7e69d11962264d64e418b0479

Quest(ion)s Section A Analysis URLs

Sound example 4.1: Sumru Ağıryürüyen "Quest(ion)s": Accompanying Text of the Improvisation:
https://youtu.be/5UO8GqwYEzs

Image 4.2: Sumru Ağıryürüyen's improvisation, Sketch of Aural Analysis:
https://padlet-uploads.storage.googleapis.com/1495101318/4e79a18d72218b935f50f2ade1accef1/HPSC0154.jpg

Sound example 4.3: Sumru Ağıryürüyen's improvisation; General Formal Analysis:
https://www.youtube.com/watch?v=nLp-S3rxz1Q&t=0s

Sound example 4.5: Sumru Ağıryürüyen's improvisation; Section-A Analysis:
https://www.youtube.com/watch?v=nLp-S3rxz1Q&t=0s

Sound example 4.6: Section A, Unit A-1, Similarity Response.:
https://www.youtube.com/watch?v=lG5_FQLHYmU&t=0s

Sound example 4.7: Section A, Unit A-1, Difference Response**:**
https://www.youtube.com/watch?v=ICKh7_NS3LE&t=0s

Sound example 4.9: Section A, Unit A-2, Similarity Response:
https://www.youtube.com/watch?v=lG5_FQLHYmU&t=8s

Sound example 4.10: Section A, Unit A-2, Difference Response:
https://www.youtube.com/watch?v=ICKh7_NS3LE&t=13s

Sound example 4.11: Section A, Unit A-3, Similarity Response:
https://www.youtube.com/watch?v=lG5_FQLHYmU&t=20s

Sound example 4.12: Section A, Unit A-3, Difference Response:
https://www.youtube.com/watch?v=ICKh7_NS3LE&t=21s

Sound example 4.13 : Quest(ion)s: Section A, Similarity Response:
https://www.youtube.com/watch?v=lG5_FQLHYmU&t=0s

Sound example 4.14: Quest(ion)s: Section A, Difference Response:
https://www.youtube.com/watch?v=ICKh7_NS3LE&t=0s

Quest(ion)s Section B1 Analysis URLs

Sound example 4.15: Sumru Ağıryürüyen's improvisation; Section-B1 Analysis:
https://www.youtube.com/watch?v=nLp-S3rxz1Q&t=24s

Sound example 4.16: Section B, Unit B-1a, Similarity Response.
https://www.youtube.com/watch?v=lG5_FQLHYmU&t=24s

Sound example 4.17: Section B, Unit B-1a, Difference Response.
https://www.youtube.com/watch?v=ICKh7_NS3LE&t=29s

Sound example 4.18: Section B, Unit B-1b, Similarity Response:
https://www.youtube.com/watch?v=lG5_FQLHYmU&t=27s

Sound example 4.19: Section B, Unit B-1b, Difference Response:
https://www.youtube.com/watch?v=ICKh7_NS3LE&t=32s

Sound example 4.20: Section B, Unit B-1c, Similarity Response:
https://www.youtube.com/watch?v=lG5_FQLHYmU&t=35s

Sound example 4.21: Section B, Unit B-1c, Difference Response:
https://www.youtube.com/watch?v=ICKh7_NS3LE&t=39s

Sound example 4.22: Section B, Unit B-1d, Similarity Response:
https://www.youtube.com/watch?v=lG5_FQLHYmU&t=39s

Sound example 4.23: Section B, Unit B-1d, Difference Response:
https://www.youtube.com/watch?v=ICKh7_NS3LE&t=44s

Sound example 4.24: Section B, Unit B-1e, Similarity Response:
https://www.youtube.com/watch?v=lG5_FQLHYmU&t=50s

Sound example 4.25: Section B, Unit B-1e, Difference Response:
https://www.youtube.com/watch?v=ICKh7_NS3LE&t=55s

Sound example 4.26: Section B1, Similarity Response:
https://www.youtube.com/watch?v=lG5_FQLHYmU&t=24s

Sound example 4.27: Section B1, Difference Response:
https://www.youtube.com/watch?v=ICKh7_NS3LE&t=29s

Quest(ion)s Section B2 Analysis URLs

Sound example 4.28: Sumru Ağıryürüyen's improvisation; Section-B2 Analysis:
https://www.youtube.com/watch?v=nLp-S3rxz1Q&t=53s

Sound example 4.29: Section B, Unit B-2a, Similarity Response:
https://www.youtube.com/watch?v=lG5_FQLHYmU&t=53s

Sound example 4.30: Section B, Unit B-2a, Difference Response:
https://www.youtube.com/watch?v=ICKh7_NS3LE&t=58s

Sound example 4.31: Section B, Unit B-2b, Similarity Response:
https://www.youtube.com/watch?v=lG5_FQLHYmU&t=57s

Sound example 4.32: Section B, Unit B-2b, Difference Response:
https://www.youtube.com/watch?v=ICKh7_NS3LE&t=64s

Sound example 4.33: Section B, Unit B-2c, Similarity Response:
https://www.youtube.com/watch?v=lG5_FQLHYmU&t=70s

Sound example 4.34: Section B, Unit B-2c, Difference Response:
https://www.youtube.com/watch?v=ICKh7_NS3LE&t=75s

Sound example 4.35: Section B, Unit B-2d, Similarity Response:
https://www.youtube.com/watch?v=lG5_FQLHYmU&t=82s

Sound example 4.36: Section B, Unit B-2d, Difference Response:
https://www.youtube.com/watch?v=ICKh7_NS3LE&t=87s

Sound example 4.37: Quest(ion)s: Section B2, Similarity Response:
https://www.youtube.com/watch?v=lG5_FQLHYmU&t=53s

Sound example 4.38: Quest(ion)s: Section B2, Difference Response:
https://www.youtube.com/watch?v=ICKh7_NS3LE&t=58s

Quest(ion)s Section C Analysis URLs

Sound example 4.39: Sumru Ağıryürüyen's improvisation; Section C Analysis:
https://www.youtube.com/watch?v=nLp-S3rxz1Q&t=100s

Sound example 4.40: Section C, Unit C-1, Similarity Response:
https://www.youtube.com/watch?v=lG5_FQLHYmU&t=99s

Sound example 4.41: Section C, Unit C-1, Difference Response:
https://www.youtube.com/watch?v=ICKh7_NS3LE&t=104s

Sound example 4.42: Section C, Unit C-2, Similarity Response:
https://www.youtube.com/watch?v=lG5_FQLHYmU&t=111s

Sound example 4.43: Section C, Unit C-2, Difference Response:
https://www.youtube.com/watch?v=ICKh7_NS3LE&t=117s

Sound example 4.44: Section C, Unit C-3, Similarity Response:
https://www.youtube.com/watch?v=lG5_FQLHYmU&t=124s

Sound example 4.45: Section C, Unit C-3, Difference Response:
https://www.youtube.com/watch?v=ICKh7_NS3LE&t=129s

Sound example 4.46: Quest(ion)s: Section C, Similarity Response:
https://www.youtube.com/watch?v=lG5_FQLHYmU&t=99s

Sound example 4.47: Quest(ion)s: Section C, Difference Response.
https://www.youtube.com/watch?v=ICKh7_NS3LE&t=104s

Quest(ion)s Section D Analysis URLs

Sound example 4.48: Sumru Ağıryürüyen's improvisation; Section-D Analysis:
https://www.youtube.com/watch?v=nLp-S3rxz1Q&t=136s

Sound example 4.49: Section D, Unit D-1, Similarity Response:
https://www.youtube.com/watch?v=lG5_FQLHYmU&t=135s

Sound example 4.50: Section D, Unit D-1, Difference Response:
https://www.youtube.com/watch?v=ICKh7_NS3LE&t=140s

Sound example 4.51: Section D, Unit D-2, Similarity Response.
https://www.youtube.com/watch?v=lG5_FQLHYmU&t=146s

Sound example 4.52: Section D, Unit D-2, Difference Response:
https://www.youtube.com/watch?v=ICKh7_NS3LE&t=152s

Sound example 4.53: Quest(ion)s: Section D, Similarity Response:
https://www.youtube.com/watch?v=lG5_FQLHYmU&t=135s

Sound example 4.54: Quest(ion)s: Section D, Difference Response:
https://www.youtube.com/watch?v=ICKh7_NS3LE&t=140s

S-wallow-ING Section 1 Analysis URLs

Image 4.58: Swallows, Sketch of Aural Analysis: https://padlet-uploads.storage.googleapis.com/1495101318/7bffa0ee3f53fa1ececc185330ababd3/HPSC0153.jpg

Sound example 4.61: Duo Swallow's Dawn Song; General Formal Analysis:
https://www.youtube.com/watch?v=z3X8Cmf2klA&t=0s

Sound example 4.62: Duo Swallow's Dawn Song; Section 1 Analysis:
https://www.youtube.com/watch?v=z3X8Cmf2klA&t=0s

Sound example 4.63: Swallow Duo Unit 1.1 Analysis:
https://www.youtube.com/watch?v=z3X8Cmf2klA&t=0s

Sound example 4.64: Section 1, Unit 1.1, Similarity Response:
https://www.youtube.com/watch?v=nj26rqrzHA4&t=0s

Sound example 4.65: Section 1, Unit 1.1, Difference Response:
https://www.youtube.com/watch?v=8WObTBi0YYc&t=0s

Sound example 4.66: Swallow Duo Unit 1.2 Analysis:
https://www.youtube.com/watch?v=z3X8Cmf2klA&t=17s

Sound example 4.67: Section 1, Unit 1.2, Similarity Response:
https://www.youtube.com/watch?v=nj26rqrzHA4&t=17s

Sound example 4.68: Section 1, Unit 1.2, Difference Response:
https://www.youtube.com/watch?v=8WObTBi0YYc&t=17s

Sound example 4.69: Swallow Duo Unit 1.3 Analysis:
https://www.youtube.com/watch?v=z3X8Cmf2klA&t=31s

Sound example 4.70: Section 1, Unit 1.3, Similarity Response:
https://www.youtube.com/watch?v=nj26rqrzHA4&t=31s

Sound example 4.71: Section 1, Unit 1.3, Difference Response:
https://www.youtube.com/watch?v=8WObTBi0YYc&t=30s

Sound example 4.72: Swallow Duo Unit 1.4 Analysis:
https://www.youtube.com/watch?v=z3X8Cmf2klA&t=46s

Sound example 4.73: Section 1, Unit 1.4, Similarity Response:
https://www.youtube.com/watch?v=nj26rqrzHA4&t=46s

Sound example 4.74: Section 1, Unit 1.4, Difference Response:
https://www.youtube.com/watch?v=8WObTBi0YYc&t=46s

Sound example 4.75: Swallow Duo Unit 1.5 Analysis:
https://www.youtube.com/watch?v=z3X8Cmf2klA&t=54s

Sound example 4.76: Section 1, Unit 1.5, Similarity Response:
https://www.youtube.com/watch?v=nj26rqrzHA4&t=54s

Sound example 4.77: Section 1, Unit 1.5, Difference Response:
https://www.youtube.com/watch?v=8WObTBi0YYc&t=54s

S-wallow-ING Section 2 Analysis URLs

Sound example 4.78: Duo Swallow's Dawn Song; Section 2 Analysis:
https://www.youtube.com/watch?v=z3X8Cmf2klA&t=66s

Sound example 4.79: Swallow Duo Unit 2.1 Analysis:
https://www.youtube.com/watch?v=z3X8Cmf2klA&t=66s

Sound example 4.80: Section 2, Unit 2.1, Similarity Response:
https://www.youtube.com/watch?v=nj26rqrzHA4&t=66s

Sound example 4.81: Section 2, Unit 2.1, Difference Response:
https://www.youtube.com/watch?v=8WObTBi0YYc&t=66s

Sound example 4.82: Swallow Duo Unit 2.2 Analysis:
https://www.youtube.com/watch?v=z3X8Cmf2klA&t=73s

Sound example 4.83: Section 2, Unit 2.2, Similarity Response:
https://www.youtube.com/watch?v=nj26rqrzHA4&t=73s

Sound example 4.84: Section 2, Unit 2.2, Difference Response:
https://www.youtube.com/watch?v=8WObTBi0YYc&t=73s

Sound example 4.85: Swallow Duo Unit 2.3 Analysis:
https://www.youtube.com/watch?v=z3X8Cmf2klA&t=85s

Sound example 4.86: Section 2, Unit 2.3, Similarity Response:
https://www.youtube.com/watch?v=nj26rqrzHA4&t=85s

Sound example 4.87: Section 2, Unit 2.3, Difference Response:
https://www.youtube.com/watch?v=8WObTBi0YYc&t=85s

S-wallow-ING Section 3 Analysis URLs

Sound example 4.88: Duo Swallow's Dawn Song; Section 3 Analysis:
https://www.youtube.com/watch?v=z3X8Cmf2klA&t=89s

Sound example 4.89: Swallow Duo Unit 3.1 Analysis:
https://www.youtube.com/watch?v=z3X8Cmf2klA&t=89s

Sound example 4.90: Section 3, Unit 3.1, Similarity Response:
https://www.youtube.com/watch?v=z3X8Cmf2klA&t=89s

Sound example 4.91: Section 3, Unit 3.1, Difference Response:
https://www.youtube.com/watch?v=8WObTBi0YYc&t=88s

Sound example 4.92: Swallow Duo Unit 3.2 Analysis:
https://www.youtube.com/watch?v=z3X8Cmf2klA&t=99s

Sound example 4.93: Section 3, Unit 3.2, Similarity Response:
https://www.youtube.com/watch?v=nj26rqrzHA4&t=99s

Sound example 4.94: Section 3, Unit 3.2, Difference Response:
https://www.youtube.com/watch?v=8WObTBi0YYc&t=100s

Sound example 4.95: Swallow Duo Unit 3.3 Analysis:
https://www.youtube.com/watch?v=z3X8Cmf2klA&t=107s

Sound example 4.96: Section 3, Unit 3.3, Similarity Response:
https://www.youtube.com/watch?v=nj26rqrzHA4&t=107s

Sound example 4.97: Section 3, Unit 3.3, Difference Response:
https://www.youtube.com/watch?v=8WObTBi0YYc&t=107s

Sound example 4.98: Swallow Duo Unit 3.4 Analysis:
https://www.youtube.com/watch?v=z3X8Cmf2klA&t=116s

Sound example 4.99: Section 3, Unit 3.4, Similarity Response:
https://www.youtube.com/watch?v=nj26rqrzHA4&t=116s

Sound example 4.100: Section 3, Unit 3.4, Difference Response:
https://www.youtube.com/watch?v=8WObTBi0YYc&t=116s

S-wallow-ING Section 4 Analysis URLs

Sound example 4.101: Duo Swallow's Dawn Song; Section 4 Analysis:
https://www.youtube.com/watch?v=z3X8Cmf2klA&t=121s

Sound example 4.102: Swallow Duo Unit 4.1 Analysis:
https://www.youtube.com/watch?v=z3X8Cmf2klA&t=121s

Sound example 4.103: Section 4, Unit 4.1, Similarity Response:
https://www.youtube.com/watch?v=nj26rqrzHA4&t=121s

Sound example 4.104: Section 4, Unit 4.1, Difference Response:
https://www.youtube.com/watch?v=8WObTBi0YYc&t=122s

Sound example 4.105: Swallow Duo Unit 4.2 Analysis:
https://www.youtube.com/watch?v=z3X8Cmf2klA&t=136s

Sound example 4.106: Section 4, Unit 4.2, Similarity Response:
https://www.youtube.com/watch?v=nj26rqrzHA4&t=136s

Sound example 4.107: Section 4, Unit 4.2, Difference Response:
https://www.youtube.com/watch?v=8WObTBi0YYc&t=136s

S-wallow-ING Section 5 Analysis URLs

Sound example 4.108: Duo Swallow's Dawn Song; Section 5 Analysis:
https://www.youtube.com/watch?v=z3X8Cmf2klA&t=144s

Sound example 4.109: Swallow Duo Unit 5.1 Analysis:
https://www.youtube.com/watch?v=z3X8Cmf2klA&t=144s

Sound example 4.110: Section 5, Unit 5.1, Similarity Response:
https://www.youtube.com/watch?v=nj26rqrzHA4&t=143s

Sound example 4.111: Section 5, Unit 5.1, Difference Response:
https://www.youtube.com/watch?v=8WObTBi0YYc&t=143s

Sound example 4.112: Swallow Duo Unit 5.2 Analysis:
https://www.youtube.com/watch?v=z3X8Cmf2klA&t=160s

Sound example 4.113: Section 5, Unit 5.2, Similarity Response:
https://www.youtube.com/watch?v=nj26rqrzHA4&t=160s

Sound example 4.114: Section 5, Unit 5.2, Difference Response:
https://www.youtube.com/watch?v=8WObTBi0YYc&t=160s

S-wallow-ING Section 6 Analysis URLs

Sound example 4.115: Duo Swallow's Dawn Song; Section 6 Analysis:
https://www.youtube.com/watch?v=z3X8Cmf2klA&t=181s

Sound example 4.116: Swallow Duo Unit 6.1 Analysis:
https://www.youtube.com/watch?v=z3X8Cmf2klA&t=181s

Sound example 4.117: Section 6, Unit 6.1, Similarity Response:
https://www.youtube.com/watch?v=nj26rqrzHA4&t=181s

Sound example 4.118: Section 6, Unit 6.1, Difference Response:
https://www.youtube.com/watch?v=8WObTBi0YYc&t=181s

Sound example 4.119: Swallow Duo Unit 6.2 Analysis:
https://www.youtube.com/watch?v=z3X8Cmf2klA&t=189s

Sound example 4.120: Section 6, Unit 6.2, Similarity Response:
https://www.youtube.com/watch?v=nj26rqrzHA4&t=189s

Sound example 4.121: Section 6, Unit 6.2, Difference Response:
https://www.youtube.com/watch?v=8WObTBi0YYc&t=189s

CURRICULUM VITAE

Name Surname: Fulya UÇANOK

EDUCATION:

- **Bachelors :** 2005, Hacettepe University Ankara State Conservatory, Music, Piano
- **Master of Arts:** 2011, Istanbul Technical University, Advanced Studies in Music, Music, Piano

PROFESSIONAL EXPERIENCE:

- **2017- to Current: Research Assistant,** Istanbul Bilgi University, Music Department
  Currently giving classes of the Lecture, Advanced Solfege (MUS 240)
  Given classes of the Lecture, Fundamentals of Music (MUS 167-168): Introduction to Harmony and Solfege
- **2014-2017: Part-time Lecturer**, Istanbul Bilgi University Music Department
  Lecturer, Keyboard Harmony: Piano I-II (MUS 171-172)
- **2011-2012: Teaching Assistant**
  Istanbul Bilgi University Music Department
  Given classes of the Lecture, Fundamentals of Music (MUS 167-168): Introduction to Harmony and Solfege.
  Lecturer of Audio Culture (AAH 106)

PUBLICATIONS AND PRESENTATIONS ON THE THESIS:

- **Uçanok, F.** 2021. Towards a Response-able Electroacoustic Composition Practice in Search of Sympoietic Multivalence: Entangling with More-Than-Humans. Electroacoustic Music Studies 2021 Conference: Future Directions of Electroacoustic Music Studies, November 10-13, 2021 Leicester, England. https://doi.org/10.5281/zenodo.5774916

- **Uçanok, F.** 2021. Towards a Response-able Electroacoustic Composition Practice: In Search of Sympoietic Multivalence, *Musicologist: International Journal of Music Studies*, 5(1), 31-46. DOI: 10.33906/musicologist.885272 https://dergipark.org.tr/tr/pub/musicologist/issue/63269/885272

RECENT PRESENTATIONS, CONCERTS AND OTHER ACTIVITIES

9 May 2022
New Music for Loudspeakers // Acousmatic Concert @ Christchurch (New Zealand)
Acousmatic piece “Swarming” presented in the festival.

21-23 March 2022
UNDÆ! Radio and Podcast // Live Broadcast @ Madrid (Spain)
Acousmatic work "Temporary Residing" selected to be presented in radio, broadcast and album.

19-26 February 2022
5th Tehran International Electronic Music Festival (TIEMF) @ Tehran (Iran)
February 24th: Acousmatic piece “Balloons for Thought” presented in the festival.

2-5 December 2021
Sonic Matter Festival 2021 @ Zürich (Switzerland)
Acousmatic piece "Temporary Residing" presented in Listening Lounge at Kunstraum Walcheturm.

13-27 November 2021
***Topia/Topya Sound Art Festival // BotecoTopia/BarTopia** @ Online (Brasil, Germany, UK and Turkey)
Discussant to talk about festival works in relation to topics of the festival.
27 December: Topic: "The role of womxn artists and audiences and the visibility of sound art festivals (Brazil, Europe, Latinamerica)"
Participants: Sonora: músicas e feminismos (BR), Fulya Uçanok (TR), Marcela Lucatelli (BR/DK). Mediators: Laura Mello (BR/DE) and Vanessa De Michelis (BR/UK).

10-13 November 2021
EMS21 Conference // Future Directions of Electroacoustic Music Studies @ Leicester (England, UK) Presenting paper "Towards a Response-able Electroacoustic Composition Practice in Search of Sympoietic Multivalence: Entangling with More-Than-Humans"

2 September 2021
Electroacoustic Stage, SALT // 28. IKSV Istanbul Jazz Festival @ Maçka Habitat Park (Istanbul, Turkey). Solo Live Electroacoustic Set

17 Jul 2021
The Listening Bienniale @ Across the globe
Klank.ist listens to the sound designs provided by the "Listening Biennial" team, in Istanbul, on a Beşiktaş-Sarıyer ferry line.

18 July 2021
World Listening Day // Soundinit Soundwalk @ (Istanbul, Turkey)
Organized by Soundinit (Serkan Sevilgen and Fulya Uçanok)

International Online Dance Festival @ Independent Online Festival
27 May: Klank.ist impro open improvisation session
This session is curated by: Ekin Tunçeli

7-8 May 2021
IPCC 2021, Interdisciplinary PhD Communication Conference // Collaboration

@ Online Conference (Istanbul Bilgi University)
-Presenting paper "Towards a Response-able Com-position Practice: In Search of Multivalence"
-Panel: "Collaboration Through Lens of Three Perspectives in Musicking Practices"

4-5 February 2021
MIAM Colloquium 2021 // Current Research in Music @ Online Seminar (İstanbul Technical University, MIAM)
Presenting a partial segment of her current research under the title "A Response-able and Intra-active Poietic Practice in search of Multivalent Musical Spaces"

15-18 July 2020
Network Music Festival // Sound Without Borders 2020 @ Live digital Stream from Birmingham (England, UK) Live Performance from Istanbul with Serkan Sevilgen: "The Curtain and Beyond"

10 July 2020
Heroines of Sound Festival 2020 @ Live digital stream from Radialsystem, Berlin (Germany Fixed electroacoustic work "Assembly" presented at "sound bar"

10 February 2020
In the Memory of Ertuğrul Oğuz Fırat @ İTÜ MIAM, İlhan Usmanbaş Hall, Istanbul (Turkey) Klank.ist musicians perform a response work, to Ertuğrul Oğuz Fırat's work "Rüzgar ve Gül" (1996-97).

14 January 2020
Elektroaskustik Paslaşmalar: Electroacoustic Duo: Senem Pirler and Fulya Uçanok @ Arkaoda, Istanbul (Turkey) A meditation on the ordinary: Dialogues with everyday objects, recorded sounds and synthesizers.

11 January 2020
San Francisco Tape Music Festival @ Victoria Theater, San Francisco (USA) Acousmatic Work "Assembly" presented at the festival.