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Communicating Through Sound in Museum Exhibitions: Unravelling a Field of Practice

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DECLARATION

I declare that this thesis is the result of my personal and independent research. Its content is original, and all sources consulted are duly mentioned in the text, notes and bibliography.

The candidate,

Lisbon, 15th October 2021

I declare that this thesis is in conditions to be appreciated by the jury to be designated.

The supervisor,

Lisbon, 18th October 2021

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COMMUNICATING THROUGH SOUND IN MUSEUM EXHIBITIONS: UNRAVELLING A FIELD OF PRACTICE

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ABSTRACT

KEY WORDS: sound in museums; sound-based multimodal museum practices; sound and representation; experiencing sound; multimodal analysis

The twentieth century was the stage for several phenomena which have paved the way for museums to start exhibiting sound and to nurture a vivid and increasing interest in its potentialities. The burgeoning of sound recording technologies stands as a milestone in this respect. These have allowed sound to become a physical object and, hence, new understandings and conceptualizations to emerge. In the wake of these developments, the ways in which museum curators look at sound has gone into a huge reconfiguration. The fact that both new museology and museum practice have been turning their attention to and focus on the visitor has similarly accelerated the curators' interest in sound as a means to build museum exhibitions. One of the latest and most striking instances in this process has been the role of ethnomusicology and sound studies in demonstrating the cultural, social, political, economic and ethical significance of sound thereby stimulating museum's interest in dealing with sound as a mode to build both individual subjectivities and communities in museum settings. The development of audio technologies and digital and multisensorial technologies (Virtual Reality, Augmented Reality and Mixed Reality) also plays a part in this process. These have the merit to provide ways to deal with the elusiveness of sound when exhibited in museum galleries and to facilitate interactions underpinned by rationales such as experience, embodiment, and emplacement.

During at least the last ten years, there has been a boost in the development of sound-based multimodal museum practices. These practices, nonetheless, have yet to be mapped, and their representational and experiential (emotional and sensorial) opportunities to be closely analysed. My thesis strives to start closing this gap by taking two analytical steps. Based on the analysis of 69 sound-based multimodal museum exhibitions staged in Europe and in the United States of America, I provide a five-use framework categorizing sound-based multimodal museum practices into *sound as a "lecturing" mode*, *sound as an artefact*, *sound as "ambiance"/soundtrack*, *sound as art*, and *sound as a mode for crowd-curation*. The case-study of sound art *The Visitors*, it unravels the communicative potential of sound for museums. In detail, the analysis stresses how sound and space comingle to articulate individual subjectivities and a sense of "togetherness."

The scope of the thesis is clearly multidisciplinary, encompassing ethnomusicology, sound studies, museum studies, and social semiotics. Overall, I seek to contribute towards the development of the study of sound in museums to develop and establish as a cohesive research field. I moreover seek to foster a sensory formation shift from a visual epistemology to one that merges the visual and the auditory.

SUMÁRIO

PALAVRAS-CHAVE: som em museus; práticas museológicas multimodais baseadas em som; som e representação; a experiência sonora; análise multimodal.

O século XX foi palco de vários fenómenos que conduziram a que os museus começassem a expor o som e a demonstrar um interesse crescente pelas suas potencialidades comunicativas. O aparecimento das tecnologias de gravação sonora constitui-se como um momento fundamental neste processo. Ao permitirem que o som se estabeleça enquanto objeto físico, vieram potenciar o aparecimento de novos entendimentos e conceptualizações sobre o som. Na sequência destes acontecimentos, a forma como os curadores de exposições começaram a olhar para o som sofreu grandes alterações. Simultaneamente, o facto de tanto os estudos museológicos como a prática museológica estarem cada vez mais preocupados com o visitante veio também acelerar o interesse dos curadores pelo som como meio para construir exposições museológicas. Os estudos musicais, em particular a etnomusicologia e os estudos de som, tiveram igualmente um papel preponderante: ao demonstrarem o valor cultural, social, político, económico e ético do som vieram claramente estimular o interesse dos curadores em usar o som como material para trabalhar noções de identidade, subjetividade e "comunhão." É ainda de destacar o papel que o desenvolvimento de tecnologias áudio, digitais e multisensoriais (Realidade Virtual, Realidade Aumentada e Realidade Mista) têm no processo. Ao proporcionarem formas de lidar com a imaterialidade do som quando exposto em galerias, vieram também fomentar interações museológicas sustentadas pela experiência.

Nos últimos dez anos, os museus têm, pois, assistido ao incrementar das práticas museológicas multimodais baseadas no som. O mapeamento e a categorização destas práticas, bem como o estudo das suas potencialidades narrativas e experienciais (emocionais e sensoriais), no entanto, está claramente por determinar. A minha tese visa dar início ao colmatar desta lacuna através de dois passos: providenciar uma estrutura classificativa das práticas multimodais baseadas em som com base na análise de 69 exposições que tiveram lugar nos últimos dez anos na Europa e nos Estados Unidos da América. A estrutura compreende as seguintes categorias: *som como um modo "discursivo," som como artefacto*, *som como "ambiance"/banda sonora*, *som como arte*, e *som como curadoria partilhada*. Simultaneamente, dar início ao desvendar do potencial comunicativo do som para exposições museológicas através do estudo de caso de arte sonora *The Visitors*. A análise deste estudo de caso veio demonstrar que som, em articulação com o espaço permitem trabalhar noções de identidade, subjetividade, e ainda de "comunhão."

O âmbito da tese é claramente multidisciplinar e engloba a etnomusicologia, os estudos de som, os estudos museológicos e a semiótica social. De uma forma geral, com a minha dissertação procuro contribuir para o desenvolvimento e o estabelecimento do estudo do uso do som nos museus como um campo de investigação multidisciplinar e coeso. Procuro ainda potenciar uma mudança de formação sensorial nos museus, em particular, estimular a passagem de uma epistemologia visual para uma epistemologia simultaneamente visual e auditiva.

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PREFACE

This thesis is the result of several events in my personal and professional paths. As I see it, a research project is not only about raising and addressing current questions, but especially about the researcher contributing with his/her perspective. I share my personal, professional and academic paths in an attempt to situate the perspectives adopted throughout the project and my personal commitment to the research subject.

In 2011, I sat in my office at the Calouste Gulbenkian Foundation where I worked as an executive exhibit producer on hard science themes, including figures such as Albert Einstein and Darwin. Although I had worked there for over a decade, the promise of receiving permanent contract as a staff member had been endlessly postponed. At the same time, I was no longer interested in managerial responsibilities. I returned to scholarly publication on music. In fact, as my father was a music lover and my mother played the piano, I had studied music throughout my childhood and adolescence and completed my undergraduate degree in musicology at the NOVA University of Lisbon. This is a subject I loved but from which I then felt detached after an eighteen-year career in museum practice. This was when I first thought of the feasibility of curating an exhibition about popular music. As the department where I worked at the Gulbenkian Foundation closed down, I quickly began to update my knowledge on current research on exhibiting music-related themes in museums which had only recently become the subject of academic interest.

The same year, I enrolled in a post-graduate program in Popular Music Studies and began to understand the extent to which music studies had evolved since I had left the university two decades earlier. While in the early 1990s, the emphasis of most courses in my degree program was on Western art music history, the analysis of music scores and attentive listening to music structures— notwithstanding courses in ethnomusicology that presented music as culture—the aforementioned post-graduate program introduced a totally new world of ideas and approaches. I soon realised that my path forward definitely involved research in the field of music studies. Furthermore, as I had already acquired a broad experience in museum studies, I thought of combining both areas. I thus started travelling more widely and quickly noted the disparity between the contents of music museums and what I was learning in the field of popular music studies. Interviews and conversations with museum curators and directors led me to realise that the majority of

music researchers knew a lot about music but virtually nothing about museum studies and that, similarly, the majority of museum professionals, even those curating music exhibitions or working as music museum professionals, were knowledgeable about museums but knew virtually nothing about music. I thus realized that I might be in a privileged position to contribute to changing the panorama of music museums. I pursued my studies with a master's thesis focusing on popular music exhibitions in Portuguese museums (Cortez 2014). This was shortly before the heritagisation of popular music in museums took on its own life and became a full-blown field of study. As my interest developed, I enrolled in the current PhD program fully dedicated to acquiring theoretical training and the tools for analyzing sound-based museums exhibits. Two years later, I also enrolled in a post-graduate program on Acoustics and Sound Studies to deepen my knowledge in these fields. What stands out in this story is that the very ways I perceive the world have changed considerably since I began immersing myself in reading and reflecting on music and museums.

Finally, I will drop some lines about my personal experience with some social semiotics methods, which will be deployed in the analysis of a case-study. Indeed, my experience with multimodality is not new but rather began around a decade ago when working as a museum professional concentrated on developing effective skills for writing museum texts. At this time, I came across the work of Louise Ravelli (1996; 2006; 2007; Ferguson et al. 1995) that adapted Discourse Analysis frameworks specifically to the case of museum texts. A few years later, in the academic year of 2013/2014, I had the opportunity to deepen my knowledge of this framework by attending the *Discourse Analysis* module on the Communication and Culture degree program, taught by Professor Carlos Gouveia at the University of Lisbon, with the goal of effectively deploying this in my master's degree. In fact, I believe the rationales underpinning systemic functional linguistics are so compelling that, after beginning to work with them, it is hard not to continue. With this being the case, in the years following my master's thesis, I have focused on greatly developing my knowledge on systemic functional linguistics, with special interest in applying it to non-logocentric regimes and correspondingly incorporating it into my PhD.

CHAPTER ONE—APPROACHING SOUND IN MUSEUMS

In his book *Nettl's Elephant, On the History of Ethnomusicology* (2010), Bruno Nettl demonstrates how the concept of music is diverse across different cultures. Indeed, ethnomusicological literature has insightfully noted the absence of the concept of "music" in many cultures (Nettl, 2005[1983], 16-17; Rice 2014, 65-67). John Baily (1996), for instance, draws attention to the difficulties of universally defining what music is and refers to his use of tests in Afghanistan seeking to determine what people consider as "music" as opposed to what is not music. This experience sheds some light on the subject by showing that in Afghanistan, instrumental music and chant are each designated with a different term—an understanding considerably different from that evident through the English language. The experiment also showed that Afghans do not consider "[…] the nature of their sounds as such, but their associations" (Baily 1996, 173), which points to the understanding that "we do not perceive song or music as an isolated acoustical phenomenon but as part of the social and cultural institutions with which it is associated." However, as Nettl (2005[1983], 17) states, all humans "[…] have taxonomies whose borders cut across the universe of humanly organized sound." In this regard, Sakakeeny (2015, 112), nonetheless, warns about the difficulties of determining the line which separates organized from disorganized sound.

This thesis focusses on the uses of sound in museums. I use the term *sound* to refer to virtually all sound phenomena resulting from sound waves that are audible to humans, including recorded sound. This means that the term sound encompasses what is considered, from a European perspective, both musical and non-musical sound. I will use the terms *musical sound* and *non-musical* sound to differentiate between these two types of sound. I have drawn on Novak and Sakakeeny's (2015, 1) as they point out that "the raw 'stuff' of sound is the tangible basis of music, speech, embodiment, and spatial orientation, and a substantive object of scientific experimentation and technological mediation."

The 1960s witnessed a rise of interest in sound. Indeed, Schafer (2004[1973]) drew attention to the informative potential of sound, thus treating it as an object for scholarly analysis. Following this, several authors from the fields of ethnomusicology and the new field of sound studies have proposed new ways of conceptualising sound, stressing the interplay of all the senses in the act of listening (Bijsterveld and Pinch 2012; Born 2013; Feld 1996; 2003; Howes 2006[2005]). The impact of the digital revolution

on the music industries and the development of multisensorial technologies motivated current debates on the representational and experiential (emotional and sensorial) dimensions of sound-related phenomena within several intersecting academic fields, such as popular music studies, ethnomusicology, and sound studies (Sterne 2012). Since postmodern scholars argued that representation is virtually unattainable (Vannini 2015) and, as Derrida (1997[1974]) argued, logocentric regimes are ethnocentric, sound started to be acknowledged as a crucial experiential resource of potential for applications designed to interrogate the world from a fresh perspective (Cobussen et al. 2013). Against this backdrop, museum curators began to invest in sound as a medium featured in exhibitions as part of a multimodal[1] idiom diversely incorporating the sonic, the visual, the verbal, and the spatial. This investment originated in a myriad of practices that I designate as sound-based multimodal museum practices. Deploying sound as a tool for lecturing, as a medium with which to build an *ambiance"/soundtrack* for art and science exhibitions, as an artefact to exemplify a given phenomenon, behaviour or musical practice, as a medium for building art installations, or as the material for *crowd-curation*[2] practices developed mostly online. In short, sound-based multimodal museum practices multiplied and diversified.

Ethnomusicology and popular music studies have shown the centrality of music in the lives of societies, demonstrating the cultural, social, political, economic, and ethical dimensions of music practices. This has fostered renewed interest in constructing exhibitions featuring musicians and musical instruments, art and popular musics, popular music "heritage" (Cohen et al. 2015), as well as emphasising the significance of sound for engaging with visitors (Cluett 2014). Despite this, sound-based multimodal museum practices have yet to be categorised and closely examined within their historic, semiotic, emotional and sensorial trajectories. My project strives towards filling this gap. Overall,

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[1] Term designating the use of several modes (words, images, sound, gestures, and so on) in one exhibit or exhibition.
[2] The term *crowd-curation* was coined by Stefania Zardini Lacedelli, John Kannerberg, and myself within the scope of discussions around the organization of an international conference on *Sound in Museums* to be held in Lisbon in 2022/23. The term refers to a set of practices that rely on a combination of social media like Facebook, Twitter and Instagram and sound-based platforms like YouTube, SoundCloud, Spotify and Clubhouse. Typically, these practices entail a predisposition to collaboratively curate an exhibition or museum activity. Practices vary from participatory sound archives to digital-native museums dedicated to sound, from sound maps, online sound exhibitions and collaborative playlists to sound walks and audio tours that extend the museum beyond its walls.

I hope to contribute towards the development of the study of sound in museums as a cohesive transdisciplinary research field.

By placing a clear emphasis on sound as a component of multimodal exhibits, I am moreover seeking a sensory formation shift from the visual to one that merges the visual and the auditory. Mention must also be made that, in offering singular representational and experiential opportunities for curators to explore and for museumgoers to engage in the sound mode likewise gives way to a new range of practices. Some of these practices are performative, as I will demonstrate later. This does not mean, nonetheless, that I am focusing equally on sound-based multimodal museum practices and other musical events (concerts and performances); rather, in this thesis I will examine a wide range of practices that are specific to the museum field. Indeed, sonic discursive events pose distinctive but specific communicative opportunities for curators to disseminate the results of music research, to convey specific moods and emotional states, and to stimulate visitors sensorially.

1.1. RESEARCH PROBLEM

This thesis focuses on sound-based multimodal museum practices. As museum practitioners and academics have only recently become interested in these practices, an established and cohesive body of knowledge characterising them is lacking. This has stimulated my interest in undertaking two fundamental tasks: (1) categorising sound-based multimodal museum practices from the beginning of public museums up to the present, examining their underlying epistemologies and rationales, and accounting for their diversity; (2) expanding knowledge on the potential of sound when deployed in museum exhibitions as part of multimodal ensembles by analysing a case study that exemplifies one of the categories comprising the aforementioned framework.

More specifically, I will address the following questions:

(1) In what ways have museums been using sound in their exhibitions since the establishment of the public museum? What are the assumptions, and underlying conceptual frameworks that underpin the uses of sound in museums? What are the research findings about sound that can contribute to its use in museums?

(2) What is the representational and experiential (emotional and sensorial) value of the use of sound in museum exhibitions as part of a multimodal ensemble? What are the meanings that might arise from the analysis of a soundart exhibition?

A particular set of circumstances provided me with the incentive to think about sound-based multimodal museum practices and to develop the current inquiry. Although all the issues are interdependent, I present each separately. The order by which I address them does not necessarily reflect their significance.

1.2. DISCIPLINARY FRAMEWORK

In disciplinary terms, I have sought to adopt a close lens and, in this sense, to rely on multidisciplinarity. More specifically, my research draws on music studies, especially ethnomusicology and sound studies, and museum studies.

(1) Music Studies and Sound Studies

Music studies have been central in shaping my research problem. In particular, Ethnomusicology's central issues and findings have informed my perception that musical sound and more broadly sound can be a central component in museum exhibits and, hence, my interest in focusing on the subject. Ethnomusicology has provided me with critical reflection about the significance of both musical and non-musical sound in human social life (Blacking 1973; Feld 1982; Nettl 2005; Seeger 1987; Turino 2008) as well as with a cross-cultural perspective on musical practices and ontologies.[3] Reflections on the significance of music as a resource for organising new types of social cohesion (Born 2013, 24-35), and for forging a common sense of humanity (Feld 1982; Hesmondhalgh 2013; Turino 2008) also stimulated my commitment to the study and incorporation of sound in museum exhibitions. Lastly, recent ethnomusicological studies on a wide range of issues such as globalization, media and technology, health, healing, war, violence, conflict, and climate change (Rice 2014) have likewise stimulated my interest in dealing

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[3] In his chapter *Ontologies of Music*, Bohlmann (2001[1999]) has signposted and described several Western musical ontologies—My Music/Your Music; Our Music/Their Music; Music "Out There"/Music in the Numbers; Music in Nature/The Naturalness in Music; Music as Science/'Musica est Scientia bene Modulanti; Music as Language/Music Embedded in Language; Die Musik/Musics; In the Notes/Outside the Notes; In Time/ Outside Time; Vom Musikalischen Schonen/On the Unremarkable in Music; Authentic Sound/Recorded Sound; In the Body/Beyond the Body. In doing this exercise, the author has insightfully heralded the fact that music can be ontologically understood in multifarious ways.

with these issues through the use of sound in museum exhibitions. Furthermore, drawing on the Ethnomusicological method, I adopt an ethnographic approach to fieldwork (Erlmann 2005; Meizel and Daughtry 2019, 176), privileging "insider knowledge" (Rice 2014, 31), and eliciting oral histories of museumgoers.

Ethnomusicology has expanded its study object to include sound, that is the sounds resulting from vibrations that are audible to humans (Clayton 2012; Meizel and Daugthry 2019). Steven Feld (2003) has insightfully drawn our attention to the primacy of sound as a means of apprehending the world and how acoustemology[4] might lead us to understand the auditory dimensions of cultures. According to Clayton (2008, 135), the examination of sound is a promising subject for ethnomusicology that is particularly appropriate for filling the "[…] gap between musical experience and paramusical discourse" which he points out is greatly under-explored. This author therefore argues for an "ethnomusicology of sound experience" (ibidem,137). The consideration of sound at large as a valid subject for research has informed my work on the representational and experiential uses of sound in museum exhibits.

The field of sound studies also influenced my thinking. According to Sterne (2012, 2) sound studies is the field that "[…] takes sound as its analytical point of departure or arrival." Focusing mainly on auditory phenomena (Chion 2012; Idhe 2007[1976]), the field of sound studies has also been influenced by sensory studies and the anthropology of the senses (Howes 2006[2005]; Classen 1997), and has been developing towards "a democracy of the senses" (Bull and Les Back 2003, 2). Resonating with this perspective, my analytical approach stems from the understanding that perception is multisensorial (Arnott and Alain 2014; Ingold 2007), notwithstanding the medium with which we are primarily interacting. I draw on extant research in sound studies for the understanding of sound's communicative and experiential proficiencies in museum exhibits.

Taking into account the understanding of music and sound from myriad perspectives, I started questioning how effective are conventional music museums and museums in general in conveying the results of recent research on sound and in exhibiting sound. In particular, the mismatch between extant research findings and music museum

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[4] *Acoustemology* is a concept referring to an acoustic epistemology, i.e., to the humans' capacity to apprehend the world with and through sound. Feld (1996) developed the concept in the scope of his participant observation of the Kaluli's (from Papua New Guinea) intricate knowledge of the sounds of their rainforest environment (see also section on the concept acoustemology below).

displays became evident. In fact, apart from the more recent popular music museums[5] which have, in many cases, introduced pioneering approaches towards the representation and display of music, the majority of music museums were designed and constructed according to the positivist "temple museum" tradition (Cameron 1972), a tradition that centres on collections of musical instruments built by music lovers motivated by their passion for collecting. Their discourses continue to reflect this approach (see chapter two). This means that, on a general level, museums stand ineffective in disseminating music studies' conceptual knowledge.[6] While there is now considerable attention paid to research application of instrumental knowledge for informing science, medicine and engineering, the resolution of conflicts, war and violence, and the improvement of urban sound environments (Harrison 2016; Titon and Pettan 2015),[7] the same cannot be said about the dissemination of conceptual knowledge by museums. More recently, in envisioning future directions for ethnomusicology, the Society for Ethnomusicology (SEM) and the International Council for Traditional Music (ICTM) have been striving not only to encourage the production of new research-based knowledge but, additionally, to assure its dissemination and engagement of the general public with a view toward communities benefitting from this knowledge thereby encouraging practice and preservation and the overcoming of socially challenging issues (Diamond and Castelo-

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[5] The fresh theoretical revamp that museum studies has been going through roughly during the past six decades has led to an expansion of the scope of the practices and themes deemed appropriate for museum display and thus driving the emergence of a wide range of popular music museums and exhibitions.

[6] In their detailed study about research applications, Nutley et al (2007) distinguish between *instrumental*, *conceptual* and *concrete* research. They use the terms *instrumental* to refer to research that supports technological innovation, the industrial sector, and the design of social programs and policies; and *conceptual*, to refer to research that contributes to intellectual challenges and influences thinking and behaviour. The authors also point out the arbitrariness of such distinctions in keeping with their conclusion that "research use is a complex, multifaceted and dynamic social process" (ibidem, 300). Ultimately, the processes by which we apply research are multiple, complex, interchangeable. Subtle research applications therefore mainly occur conceptually rather than instrumentally because for a practitioner to adopt instrumental research, several conceptual acknowledgments have to have already been made in fluid and dynamic processes rather than in one single event. In a similar vein, Jorge Wagensberg (1998, 97), proposes that science undergoes application through four routes and channels: the *scientific community* that creates it; the *production sector*, (the industries to which it is applicable in); the *government* and *political leaders* responsible for strategically applying research-based knowledge; and *society* which benefits from these scientific achievements.

[7] The Faculty of Music of University of Arts in Belgrade has created a Master's degree program in *Applied Research in Music* to ensure the acquisition of knowledge, competencies and skills essential for students' inclusion in the twenty first century creative industries. Applied ethnomusicology was launched as a sub-discipline of Ethnomusicology at least since 1998, giving considerable attention to academic engagement with social issues (Harrison 2016), focusing on *resilience* and *adaptive management* as strategies to secure the sustainability of musical practices (Titon and Pettan 2015) and the potential role of music in the *resolution of conflicts* (Castelo-Branco 2010).

Branco 2021, 9). I frame my research on sound in museums within the socially engaged contemporary ethnomusicology.

In mobilizing the knowledge produced by music research, museums open avenues for a better society. Vannini (2019, 3) insightfully asserts: "[…] a more public scholarship is the key to a more advanced democratic society." Museums are, as can never be stressed enough, clearly at the forefront of the institutions committed to fulfilling societal objectives; considering sound as a valuable tool that can contribute to this process. However, museums are just beginning to explore sound's potential for communicating representational and experiential meanings. In most cases, their exhibitive routines seem ineffective and do not use the embodied, emotional, affective, and imaginative dimensions of sound in their exhibitions. Sound is not just music, but a resource which can be associated with virtually any subject. This points out the need to conduct research on the potential of sound for building sound-based multimodal museum exhibits.

(2) Museum studies and museum practice

The field of museum studies and practice within which I have been working for roughly eighteen years was fundamental in shaping my research. Throughout the second half of the twentieth century, museum studies have gone through an intense reconfiguration. Its new conceptual terrain unfolds into three main areas: critique of representation (Bal 1996, 2011, Kirshenblatt-Gimblett 1998; Macdonald 2011) which has given rise to the understanding that meanings are contextual; the valorisation of the visitor (Hooper-Greenhill 2011; Roppola 2014[2012]; Simon 2010) and the centrality of notions such as identity (Falk 2006; 2009), plural public, and engagement;[8] and the development of a new focus on commercialism and entertainment (Prior 2011). Among several reconfigurations, contemporary museum studies and practice have shifted from a commitment to exhibit material objects to a commitment to the visitor as a human entity stands as the most prevalent. Macdonald (2011, 8) designates this trend as the "new orthodoxy of visitor sovereignty." The visitor to be sovereign means that in communicative terms, exhibitions must be conceived in such a way as to pave their way directly to the visitor. In other words, to induce visitors to learn by experiencing and

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[8] Learning, meaning-making and engagement are now perceived as consisting of processes integrating prior knowledge and experiences, choice-and-control, memories (Falk 2006, 155), and a sense of nostalgia and emotion (Leonard and Knifton 2015, 161).

engaging meaningfully rather than just by absorbing knowledge. This has translated into museums concern with the immersive and the spectacular along with the pursuit of emotional and affective narratives and displays. At the same time, as the social sciences has turned their attention to the sensorium, museums similarly started to developed approaches favouring the apprehension of the museum object through multiple sensory modalities—a trend which Howes (2014) called sensory museology. Such reconfigurations led me to realise why sound has been receiving such an increasing interest from museum curators, specifically, how its properties render a golden material for knowledge to be embodied and experienced by museumgoers and for curators to develop social work, as required by contemporary museum rationales.

Within this scenario, and in articulation with the opportunities generated by the more recent technological developments (Henning 2011; Witcomb 2011), sound has been increasingly acknowledged as an appealing medium with which to build exhibitions. While the signifying opportunities that visual modes might generate for museum exhibitions have largely been explored and studied (Kress and Leeuwen 2006[1996]; Ravelli 2006), neither those generated by sound have yet to be accurately determined, nor the sound-based multimodal practices were fully mapped and categorised. Indeed, the literature specifically providing a classificatory framework for sound-based multimodal museum practices or deploying analysis of sound-based multimodal exhibitions in terms of signification is very scant. Mention can be made of some articles that have attempted a classification of the delivery of popular music exhibitions. I mention these articles, not because they provide insights or attempts towards outlining a wide ranging classificatory system for sound-based multimodal museum practices, but because they have awakened in me the interest to work in that direction. In detail, Leonard has worked towards grasping the concepts underlying popular music narratives in the UK (Leonard 2007), an approach that Cortez (2015) and Baker et al. (2018) have all similarly pursued and leading the latter to propose a framework of eight analytical concepts: (dominant and hidden histories, projected visitor numbers, place, art and material culture, narrative, curator subjectivity, nostalgia and sound with a view toward arriving at a cross-cutting agreement that can illustrate and allow comparisons among the different institutional practices in the museums in the West. From a methodological perspective, these works have developed mainly by drawing on in-depth interviews conducted with museum practitioners. More

recently, Salmouka and Andromache (2021) propose a three-fold framework referring to the main roles enacted by sound in museums.

Discussions specifically analysing sound-based multimodal museum exhibitions, that is, applying a *signifying* lens to the sonic layer of an exhibition in articulation with the other modes, are very few and mainly refer to popular music exhibitions and museums (Bruce 2008; Burgoyne 2003; Juchartz and Rishoi 2006). More recently, Cortez (2019) examined several popular music exhibitions and identifies the emergence and development of the new genre which she designates *performatively driven*. None of the aforementioned articles, nonetheless, adopts a consistent social semiotic analytical approach deployed in this thesis.

There is thus a clear need to map and classify sound-based multimodal museum practices, and to experiment and conduct research about the opportunities offered by sound for conveying representational and experiential meanings as part of multimodal arrangements. This moreover argues for research on how to turn sound into a useful and meaningful mode for building museum exhibitions and, hence, the development of my thesis.

Towards sound in museums

This section focusses on the theoretical perspectives and concepts that congeal at the intersection of the theme of "communicating through sound in museums." This entails addressing concepts and frameworks from both music studies and museum studies that underscore sound as a medium for stimulating patrons representationally and experientially (emotionally and sensorially) in museum exhibitions and for fulfilling the "new museology's"[9] aims and challenges. The significance of these two fields for the development of my subject, nonetheless, should not be devised in isolation, but rather in constant dialogue with one another as if they are a binary coupled in a new disciplinary field. In terms of music studies fields, ethnomusicology and sound studies come under the spotlight for they have provided me with the material to reason on sound's communicative potential. The conceptualisation of sound within the framework of these

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[9] A term introduced in 1989 by Peter Vergo in the introduction to his edited collection of essays *The New Museology* (Macdonald 2011, 2). New museology was crucial to the turn to the visitor in museum theory and practice.

two fields, nonetheless, is very broad, and so I have selected the relevant perspectives and concepts by drawing on the contemporary museum studies and practice.

Representation

Representation is central in my work. It constitutes the production of meaning about a given phenomenon not by displaying it but rather by speaking on its behalf (Oliveira 2018), by describing and depicting it (Hall 2013); in other words, a narrative that stands for a targeted phenomenon. However, this is a complex endeavour. In fact, representation, although striving to represent the world meaningfully, frames it, only portraying a specific and partial dimension and thereby producing new occasions.[10] In a similar vein, in her book *Destination Culture, Tourism, Museums, and Heritage* (1998), Barbara Kirshenblatt-Gimblett stresses that museums' approaches and corresponding display techniques are not neutral. Indeed, she posits display to be highly agentive in that it produces not simple representations of the past but rather new cultural productions which aim at recovering "dead" places. Simultaneously, representational gestures such as museum exhibitions become entangled in social practices and power relations and with both requiring a critical examination of representation.

Hall (2013, 3) distinguishes between two mutually constitutive "systems of representation:" the *conceptual*, a set of concepts or ideas endowing meaning to a specified phenomenon—which, for the medium of the museum, means the thoughts and understandings of museum practitioners towards any given phenomenon; and the *signifying*, a set of signs representing those concepts—which for the medium of the museum means the objects, texts, images, and sounds—and the exhibitive strategies deployed in displaying them.

Visual and aural/oral epistemologies and *acoustemology*

The written word has long been considered the technology for encoding knowledge (McLuhan 1970, 132; Shepherd 1991, 41), that is "[…] the objects and concepts about which people speak" (Shepherd 1977, 35). The contemporary world, nonetheless, has increasingly been fascinated with multisensorial devices and with their

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[10] For a detailed distinction between *representation* and *representations,* see the chapter *The Poetics and Politics of Exhibiting Other Cultures* by Henrietta Lidchi (2013).

proficiency for encoding knowledge that is graspable by the senses. Holger Schulze (2019, 10) puts this very clearly by stating that "in the present world, the circulation of sensologies has taken over the place of activity, the reflection and the echo of the already-felt have replaced thinking: acting and thinking are exposed to the continuous trade with sensological commodities […]." This new sensological paradigm has indeed given way to an epistemological shift which assumes a central role as a connective thread intersecting all the concepts brought to bear on this thesis. I am referring to the shift from the visual to the aural/oral epistemologies. Due to its significance in the emergence of sound-based multimodal museum practices, there is the need to provide some clarification about this shift with the aim of contextualizing why sound is increasingly deployed in museums.

For knowledge to be produced, researchers must experience the world by capitalizing on the body's affordances and its sensorial apparatus. Knowledge has neither any will of its own nor does it emerge from elsewhere for integration into our brains; it rather emerges from an underlying rationale dominated by a set of specific body's affordances. The Western world, including its museum practices, has always contended with a tension between two sensorial apparatuses: the visual and oral/aural epistemologies, with each oriented towards capturing the world primarily through visual or oral/aural perceptual processes.[11]

John Shepherd (1991, 37) traces the rise of visual rationales to the post-Renaissance period when Western societies abandoned their oral/aural condition to enter a literate era in which meaning became attached to either visual signs or physical objects that encode ideas, thoughts and conceptions. The action of attaching meaning to a visual sign or physical object produces a separation between a phenomenon and its representation, which is here forwarded to an object exterior to the perceiver. This is actually the process that lies at the crux of the rationale of "objective truth."[12] In general terms, objectivity refers to the act of placing knowledge out there in objects and signs that we then deem neutral as a result of having eliminated personal biases (McLuhan [2004] 1989, 69) Through a pervasive belief in material objects and visual signs as the containers

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[11] For McLuhan (2004[1989], 71), only occasionally do we find a person who has developed both proficiencies equally.

[12] The ideal of objectivity for scientific inquiry, nonetheless, has been highly contested ever since the 1970s by the school represented by Gunnar Myrdal. In his book *Objectivity in Social Research* (1969), Myrdal contends that the idea of real objectivity is an illusion that can in no way be achieved in keeping with that every project of research is guided by certain viewpoints involving subjectivity.

of truth, museums developed practices entirely focused on making their collections into sites of classification and owning (Pearce 2005[1995]) that should be displayed so as to secure "visual interest" (Alpers 1991, 25) and "resonance and wonder" (Greenblatt 1991). Other effects follow by relying on a visual course of thought. The fact that the eye does not absorb everything simultaneously but proceeds by following a path that focuses on one point at a time brought about a sequential understanding of phenomena that underpinned the longstanding linear science ascertained by causes and effects and visual clues. Visual rationales also owe their success to the very fact that visual signs are considered more easily subject to control. That control enables persons to speak more confidently about a world that not only fascinates them but that also frightens them to the extent of their inability to grasp it.[13]

As regards the oral/aural communication systems, McLuhan (2004[1989], 71-2) argues that they seem to have been excluded right from the beginning of the writing era until the emergence of recording technologies that have come to disclose a very new interest in sound (Sterne 2003). Recording in itself impressively changed the paradigm of time (Reynolds 2011) given its ability to fix a particular moment then susceptible to reproduction whenever the listener wished (ibidem. p. XXXVI); in other words, recording rendered repeatable what had long been unrepeatable due to its very nature (Kahn 2001[1999], 8). McLuhan (2004[1989]) stresses how the advent of technologies such as the radio and the phonograph attributed new value to aural culture, a stance that is further pursued by Erlmann (2004) and Connor (1997).

The rise of recording technologies enabled original sound sources to no longer necessarily be present and visible whenever listening to a recording (Tuuri and Eerola 2012, 139). The separation of sound from its source and from sight (Leppert 2014, 7) represented a novel situation for experiencing sound.[14] Taking into account the aforementioned, McLuhan (2004[1989]) and Cutler (2004[1989]) propose that recording caused a shift in the sensory spectrum and in the epistemological orders, from the visual to the oral/auditory. Oral/aural epistemologies acknowledge how sounds conflate simultaneously in the perceiver's ears and thereby leading him/her to experience the

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[13] According to Shepherd and Wicke (1997, 127), "A gaze can be controlled more easily than hearing, and in this sense the world of vision becomes safer and more permanent than the word of sound." In addition to this, for Shepherd (1991, 39), "the indestructibility of matter is itself a concept analogous to the idea of permanence engendered by the keeping of written records."
[14] Sterne (2003, 154), nonetheless, posits that rather than creating new modes of listening, audio technologies have come to enlarge and disseminate previously confined sounds.

world through his/her body. In encapsulating sound as flowing simultaneously from all sides, oral/aural modalities bring all things together and produce no separation between reality and its representation; they furthermore emphasise the essence of phenomena and proclaim no need for explanation, only being. (McLuhan 2004[1989], 70).[15] McLuhan moreover maintains that thinking with and through the audible leads to reaching the multitude. Oral/aural epistemologies moreover replace traditional Western chronological rationales of cause and effect with a scenario in which everything converges, unites, and syncretises (McLuhan (2004[1989], 70). The world is here understood in terms of experience rather than the acts of pointing it out and speaking on its behalf enabled by the visual rationales.

The concept of *acoustemology* merits particular attention within the scope of this overarching category of sonic epistemologies. Coined by Steven Feld (1996), *acoustemology* presupposes using our sensorial apparatus to represent and grasp the world sensorially. The term targets knowledge about the world to be acquired dialogically, contextually and experientially by relying on sound's relational dynamics in a way that differs significantly from the static perspectives offered by logocentric regimes. Feld's *acoustemology* has effectively established "sound as a way of knowing" (Feld 2015, 12).[16] I used Feld's perspective as a tool for interrogating all the exhibitions that I visited as part of the process that culminated in the proposed five-use framework characterising sound-based multimodal museum practices presented in chapter two. It may be argued that the idea of knowing through sound prevails throughout all sound-based multimodal museum practices. Furthermore, this notion has attracted singular attention from sound artists in that it clearly informs a substantial proportion of their work as I shall explore in chapter two. As it considers listening in relation to place and space-

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[15] In his article *Visual and Acoustic Space*, McLuhan (2004[1989], 70) refers to the world of oral tradition subsuming the mentality of the pre-literate in the following terms: "It is the mentality of the multitude, or as Yeats put it: everything happening at once, in a state of constant flux. For the genuinely tribal man there is no casuality, nothing occurring in a straight line. He turns aside from the habit of construing things chronologically." In referring to the acoustic space specifically, the author goes on to state "It is both discontinuous and nonhomogeneous. Its resonant and interpenetrating processes are simultaneously related with centers everywhere and boundaries nowhere" (ibidem, 71).
[16] Ultimately, Feld's concept of *acoustemology* becomes a way of *acoustic knowing*, an experiential knowledge based on the "intimate relations between sound, space and place" based on the justification that "space indexes the distribution of sounds, and time indexes the motion of sounds" (Born 2013, 8). According to Born (2013, 7), Feld stands at the intersection of sound studies and the anthropology of the senses while passing through Merleau-Ponty's sensory phenomenology—"Merleau-Ponty argues that culture does not solely reside in objects and representation, but also in the bodily processes of perception by which those representations come into being" (Mikula 2008, 152).

time (Feld 2015, 15)—a research protocol grounded on *tracing associations* (Latour 2005,6) between "numerous sources of action" (Feld 2015, 15)—acoustemology moreover inspired me to consider, in my analysis of *The Visitors* (chapter three), the associations between sound and space sensorially understood through the body in an interlinkage with Don Ihde's (2007[1976]) phenomenologies of sound.

Feld's concept of acoustemology moreover resonates with sound epistemologies posited by Schulze's (2016) three examples of sonic epistemologies: *human echolocation*—a cultural practice applying all the senses except vision to develop a sense of security within a given environment; *acoustemology*—drawing on sound as an epistemic medium among other senses; and *sonic fiction*—referring to a detailed description of our individual and idiosyncratic narrations of auditory experiences. Schulze's perspective is particularly relevant for my work on two levels: on the one hand, it clarifies that virtually all sound-based multimodal museum practices encompass an epistemic potential and this need considering when examining just how sound as a mode for building exhibitions communicates.

All of the aforementioned suggests that sound can provide us with a medium toward understanding the world. Museums are increasingly turning to sound as a medium to facilitate learning, interacting, and experiencing exhibitive contents as part of their aim of reaching out to museumgoers. We have thus been witnessing an interest in sound as a subject of research and application.

Sound as an object, an artefact and a fragment

Sound as object and *artefact* are foundational perspectives in my work. These perspectives are closely examined in chapter two as part of the five-use framework for categorizing sound-based museum practices.

The fact that sound is considered boundless until it reaches a material that affects its propagation, i.e. "[…] the walls, the ceiling, the floor, the people in the audience, etc." (Roederer, 2008, 2) has possibly been what has long prevented it to enter the museum. Considering *sound as an object* is the perspective that has given form to sound for the first time and has thus unlocked the exhibition of sound in museums.

The origins of considering sound as an object can be traced back to the wake of the burgeoning of sound reproduction technologies when Schaeffer (2004[1966], 76-81)

conceptualized sound as a delimited transportable object like the conventional ones. As sound has long been understood solely as an elusive and transient phenomenon, this conceptualization still causes perplexity today. Cook (2000[1998], 51-73) traces the beginnings of the trend to turn music into an object back to the industrial age when everything had to be turned into exchangeable value. For this author, notation and recording transform a temporal experience into an imaginary object while also arguing both that notation and recording technologies fulfil the purposes of conservation.[17]

In her *Dictionary of Artefacts*, Kipfer (2007, 17) coins the term artefact to refer to "any object […] made, affected, used, or modified in some way, by human beings," a description that clearly encompasses human sound practices. In a similar vein, for Mortensen (2012), a sound object, once transported to the museum, becomes an artefact. In light of these perspectives, whereas *sound as an object* is of high significance in my work because it has given shape to sound, *sound as an artefact* ensues by giving it cultural significance and, hence, museum interest. Within the scope of my thesis, a sound artefact, thus, is not just the soundwave-object played within a museum gallery but also the historical, cultural, economic, social, political, and semiotic content as well as the engendered aesthetic pleasure and fruition, the emotional responses and significant memories it elicits, and the kinetic responses of the body it affords. *Sound as an artefact* informs my approach to the analysis of the sound-based case study deployed in chapter three where I seek to grasp the experiential and representational meanings deployed through sound as part of a multimodal ensemble.

Finally, mention must be made that I understand *sound as an artefact* to also be a *fragment*, in the sense posited by Barbara Kirshenblatt-Gimblett (1998, 18) in reference to the ethnographic object: "the artfulness of the ethnographic object is an art of excision, of detachment, an art of the excerpt." This is moreover of utmost significance within the scope of contemporary museum studies which has drawn our attention to the fragility and uncertainty of representation (MacDonald 2011).

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[17] Grounded on the idea of music as object, Cook (2000[1998], 29) also developed an idea of a *musical museum* which he believes underpins the understanding of music as aesthetic capital.

The materiality of sound and sonic materialism

The establishment of the notion of sound as an object and the interest in sound as a subject of research in its own right also led to reflections on the materiality of sound. Debates on the materiality of sound typically unfold into three strands: a philosophical strand that seeks to simply shift from the conventional approach to sound as intangible to the understadning that it is material and, hence, an object. In another words, if sound affects us, it is material (Clarke 2012, 333-42; O'Keeffe 2013, 91-113; Straw 2012, 227-36)—a debate that is linked to the *sound as an object* and *sound as an artefact* discussed above.

The second strand, often falling under the umbrella of the *materiality of sound*, is at the heart of my decision to take on a sensorial approach in my analysis. The starting point is that sound has a materiality as long as it offers listeners an opportunity to react. This brings into focus sound's *affordances*, a concept coined by James Gibson in 1966. *Affordances* introduces discussions around how every object provides opportunities to perceivers through its materiality (Clarke 2012, 337): Menin and Shiavio (2012, 203) posit the term affordances as referring to "[…] the set of possible motor actions evoked by the intrinsic properties of an object." Furthermore, Clarke (2005, 38), for example in his book *Ways of Listening: An Ecological Approach to the Perception of Music,* details how musical material can be construed as affording specific kinds of interpretation and *perfectly tangible acts* such as "[…] dancing, worship, coordinated working, persuasion, emotional catharsis, marching, foot-tapping […]."[18] These concepts significantly invigorated my interest in analysing the musical layer of the installation-work *The Visitors*, presented in chapter three, from the perspective of its material traits graspable at the sensual level—an approach I pursue by drawing on social semiotics' interactional approach.

The third strand, often subsumed by the term *sonic materialism* seeks to interrogate sound at large (Schulze 2013; 2016; 2017; 2018). In particular, the concept emphasises sound in relation to its contiguous dispositions such us the human body and space—this latter being addressed below. This debate has prompted me to reason about how "sounding and listening are grounded in the *corporeality* of human beings" (Schulze

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[18] Dibben (2012, 350) has nonetheless challenged this view by maintain that the human develops reactions to sound within their framework of listening practices rather than through the acoustic characteristics of sounds.

2013, 196) that is, our bodies are actually the apparatus through which we perceive the world, ultimately as a "signifying structure" (Schulze 2017, 225). This clearly advances the idea that we can listen to sounds "[…] as fictions affecting our body without presenting an argument" (ibidem, 205), a view fostering a sensorial focus on sound which I pursue in my analytical approach. My interest in the sensorial dimension, which can only be reached through experiencing, moves away from a logocentric reading of sound and its semiotics towards an idea of knowing through sound.

Soundscape and ambiance

The concepts of *soundscape*[19] and *ambiance* are implicated in my work. They are of capital importance for my analysis of the use of sound as "*ambiance"/soundtrack* in chapter two. The concept of *soundscape* originated with Schafer's (1994[1977]) book *The Soundscape, Our Sonic Environment and the Tuning of the World*, which has inaugurated the mapping and classification of soundscapes. The concept has inaugurated the field of Sound Studies and contributed to the study of perceptions of the environment, psychoacoustics, bioacoustics, environmental acoustics, history of the senses (Féraud 2017, 22). More recently, the original meaning of *soundscape* has too often drifted from Schafer's original proposal and has become nearly arbitrary (Augoyard and Torgue 2011[2008], 7; Kelman (2010).[20] The concept of *ambiance* (Guillebaud 2017, 4) was then proposed, incorporating the more contemporary sensorial approaches. My sound-based multimodal museum category *sound as "ambiance"/soundtrack* is linked to the idea of environmental sound. I subscribe to the concept of *ambiance* in that I view meanings not in the objects alone, but also in the bodily gestures performed during the interpretative processes. *Ambiance* has moreover enabled me to emphasise the value of the sonic to characterise a place and in the power of our senses to feel and sense that same place. The concept has moreover given substance to my idea that the sonic can define an ambient and, thus, the primacy I give to sound in the analysis of the different modes comprised in the installation-work *The Visitors*.

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[19] Although the origins of the term are commonly attributed to Murray Schafer, Jonathan Sterne (2013, 185-6) reports earlier conceptualizations and mentions how Schafer himself credited the concept to Michael Southworth.

[20] Augoyard and Torgue (2011[2008], 7) consider that not only does the concept of the *soundscape* seem too broad and blurred but also Schaeffer's concept of *sound object* seems too elementary to fulfil the variety and complexity of the current analyses of sound in diverse situations.

Space, resonance, and immersion

Lefebvre's (1991[1974]) conceptualization of space resonated the most with me. Whereas in a Cartesian understanding, space is a container in which material objects and living bodies are placed, for Lefebvre space is socially construed and articulated, that is, it is rather constituted with and through the relationships between material objects and living bodies. Aligning with this, Schulze (2017, 222) refers to the *auditory dispositive*[21] as a means to consider the specific acoustic characteristics of the space in which we are situated, as well as the social practices taking place therein.[22] Georgina Born (2013) furthermore points out that technology has the merit to transpose distinct spaces, not only physical spaces, but also exteriorising the intimate space of the self. Ultimately, the auditory experience itself draws on the idea of a flowing space and the self to be a body through which sound travels. Lastly, I must mention the work of Eisenberg (2015, 193) which has led me to see very clearly that beyond the fact that sound waves rely on space to propagate, sound's materiality is moreover highly dependent on the spatial position of its listener, that is, sound is not the same thing at all positions in a given space. Eisenberg's perspectives have informed my understanding of practices falling into the category of *sound as "ambiance"/soundtrack* and of practices of *sound as art* described and analysed in chapter two—both practices indeed greatly taking advantage of space as a compositional parameter. These reasonings made me particularly attentive in my analysis of the installation-work *The Visitors* to take into consideration space on three fronts: 1) the ways in which the museum, as a space which has been long meant to be a place for museumgoers to adopt formal behavior and grasp "true knowledge" from objects, has influenced museumgoer's interpretations when visiting installation-works such as *The Visitors*; 2) how sound depends on space to became and how space affects its materiality;[23] 3) the type of individual and social behavior the installation-work has facilitated.

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[21] Term coined by Rolf GroBmann in 2008 (Schulze 2017, 222).

[22] In a similar vein, Blesser and Salter's (2009[2007]) have demonstrated that reasoning on space entails considering the emotional and behavioral meanings aurally experienced by its users, an analytical approach which they call auditory spatial awareness (idibem,12-15).

[23] Ethnomusicological perspectives have also contributed to my reasonings of this remit particularly Eisenberg (2015, 194) who has demonstrated that "[…] space is constitutive of sound."

Concepts such as *resonance* and *immersion* arise from the aforementioned understanding of space to be a constituent of sound. *Resonance* is indeed a fundamental concept in this thesis, and it will be used in the analysis of the case study (chapter three). The term has been used for different purposes and has had diverse meanings, namely "[…] scientific, metaphorical, causal and affective, deterministic and non-deterministic, materialist and aesthetic" (Koepnick 2021, 5)."[24] Despite the diversity of uses, Koepnick (2021, 6) states that the term serves mainly two purposes: as a tool to explain observable phenomena; as a "figure of thought" with which to ponder on some realities involving two or more bodies, forces, or materials combined by some kind of relationship. My interest in the concept links with this later purpose. Indeed, throughout my analysis of the installation-work *The Visitors*, I have relied on the concept to ponder on the extent to which sound's resonance allowed the work to build on social work.

Immersion is similarly highly dependent on space. The concept deserves mention in that it underscores many sound-based multimodal museum practices, at least theoretically. Today, *immersion* is one of those words that are overused leading to a loss of meaning[25] (Schrimshaw 2015). Schrimshaw (2017, 2) proposes that immersion commonly refers to the "[…] omnidirectional, enveloping qualities ascribed to a specifically sonorous experience or sensibility." Deeply rooted in the phenomenology of Husserl and Merleau-Ponty, the notion has taken hold within sonic discourses and practices for it implies an enveloping and encircling space achieved by the experiential qualities of sound in opposition to the visual (Schrimshaw 2015). Its success has partially been heightened by the idea that we do not perceive from a distance but immanently.

[24] Erlmann (2015) traces the use of the term *resonance* back to the early stages of the Scientific Revolution, in the beginning of the 17th century, when sound's acoustic dimensions started to attract research interest. A scanty fifty years on, the term also has come into use within the field of medicine (Erlmann 2010, 114) to mean "an all-encompassing sympathetic resonance interlinking vibrating fibers, nerves, and fluids […]" (Erlman 2015, 177) operating within the human body. This has resulted in *resonance* to refer to what weaves across the vibrating material bodies (strings and body nerves) and the air. Another strand of use comes from Descartes' work in which *resonance* means the "main operative mechanism" (Erlmann 2015, 177) keeping together the mind and the body which he posits to be distinct and separate entities. The term has also been used in reference to the physiology of audition up to the beginning of the twentieth century. Other understandings of the term comprise its use in phenomenology, most significantly by Heidegger who use it in relation to an innovative philosophical practice which admits the confluence of dichotomies (Erlmann 2015, 180). For Koepnick (2021, 4), the meaning of the term resonance is particularly varied for "[…] it appears virtually impossible to identify the concept's common denominator." Its uses include the "scientific and metaphorical, causal and affective, deterministic and non-deterministic, materialist and aesthetic" spheres (p. 5). Finally, Greenblatt (1991, 42), posits, from within a museum studies perspective, the term *resonance* to refer to "[…] the power of the displayed object to reach out beyond its formal boundaries to a larger world to evoke in the viewer the complex, dynamic cultural forces from which it has emerged and for which it may be taken by a viewer to stand."

[25] Linda Hutcheon (2006, 22), for example, considers novels, plays, films, and videogames to be immersive.

Immersion thus implies the sensorial and emotional engagement felt by the body of a perceiver in opposition to a logocentric interpretation (Schrimshaw 2017, 89) and in this sense, it clearly aligns with all the other concepts discussed in this section.

Interactivity

Interactivity is a slippery concept, Griffiths (2013[2008], 161) posits, especially because it has changed significantly over time. It entails the use of technological means (Henning 2011, 302) to empower museumgoers, and boost museums audience. New technologies have become a promising "course of action" to provide visitors with exciting experiences and to enable museums to democratise knowledge. In this thesis, nonetheless, I subscribe to Macdonald (2002) and Witcomb's (2011) conceptualisations of interactivity. Macdonald (2002) has demonstrated that interactivity implicates "action" and "choice;" Witcomb (2011, 355-360), in turn, maintains that interactivity should be understood as a site for dialogue. Moreover, my work develops from the idea that interactivity proceeds globally by capitalising on the senses, and hence my conviction that it strongly links with sound. Several sound-based practices (sound art installations above all) described in chapter two provide museumgoers with opportunities to actively interact with sound. My analysis of the installation work in chapter three also demonstrates that when combined with space, sound proves to be a particularly innovative and effective medium for museumgoers to interact in a way which differs from the common experience of listening to sound.

The above-mentioned literature has in effect demonstrated, and in relation to the specific purpose of my thesis, how sound is of singular value as a perspective through which social and cultural relations can be conveyed and understood. It has moreover demonstrated, that sound is of crucial value for museum exhibitions as a representational means deploying symbolic and semiotic meanings, and as an experiential material engendering emotional, sensorial and embodied responses.

1.3. METHODOLOGY AND ANALYTICAL TOOLS

I adopt a transdisciplinary approach, building on the assumptions, concepts, and approaches proposed by ethnomusicology, sound studies, social semiotics, and museum studies. In detail, I adopt three methodological approaches: the systematic *observation of*

exhibitions, grounded in ethnographic principles, with a view toward mapping sound-based multimodal museum practices and developing a corresponding typology; and the *qualitative analysis of a case study* by applying social semiotic approaches. I analyze the signifying modes of the installation-work *The Visitors* by Ragnar Kjartansson, focusing on the visual, the sonic, the textual and the spatial dimensions. I also interviewed museumgoers to the installation-work when it was staged at SFMoMA in 2018.

The observation of the exhibitions took place over nine years. When I started the observation, I had no idea that I will be developing the framework that I am presenting in chapter two. My interest was only to observe the sonic layer with a view to understand what strategies were used to exhibit sound and what functions sound is specifically fulfilling in each exhibition. My curiosity for the subject was immense and so I visited as much sound-based multimodal exhibitions as possible. These observations have resulted in proposing a five-use framework for categorising sound-based multimodal museum practices from the beginning of public museums up to the present, specifically *sound as a "lecturing mode"*, *sound as an artefact*, *sound as ambiance/soundtrack*, *sound as art*, and *sound as a mode for crowd-curation* (chapter two). The work comprised the analysis of sixty-nine sound-based multimodal museum exhibits (fifty-nine onsite and ten online exhibitions, see table 1); in some cases, conducting interviews with museum professionals, and drawing on extant academic literature on the subject. All the exhibitions observed were visited between 2011 and 2021 (see table 1).

MUSEUM/ EXHIBITION	1st visit	2nd visit	3rd visit	Sound Design	Work realized
Music Museums in Europe					
Museu da Música, Lisboa, Portugal	1996	2011	2015		No information about the precise dates of visit.
Museu da Música Portuguesa, Casa Verdades de Faria, Estoril, Portugal	2011	2015	2015		2nd visit 24/05/15 3rd visit 22/06/15
Le Min, Musée des Instruments de Musique, Brussels	2012				No information about the precise dates of visit.
Haus der Musik, Vienna, Austria	2014				Visited on 1st March 2014
Mozart Haus Vienna, Austria	2014				Visited on 2nd March 2014
Kunst Historisches Museum Wien, Collection of Historic Musical Instruments, Vienna, Austria	2014				Visited on 3rd March 2014
Staatliches Institut Fur Musikforschung, Berlin, Germany	2014				Visited on 6th March 2014
Ceské Muzeum Hudby, National Museum – Czech Museum of Music, Prague, Czech Republic	2015				Visited on 26th March 2015
Museu de Etnomusica da Bairrada, Troviscal, Portugal	2015				Visited on 1st June 2015
Horniman Museum & Gardens, Music Gallery, London, UK	2015				Visited on 5th August 2015
Pitt Rivers Museum	2015				Visited on 6th August 2015
Musée de la Musique, Paris, France	2016				Visited on May 2016
Museum of Portable Sound, UK to Everywhere	2017				Visited in the summer 2017, Lisbon Visited on 24th November 2017, Bradford
Music Museums in the USA					
Exploratorium, Sound and Listening Gallery, San Francisco, USA	2017				Visited on 24th December 2017
MET Museum, Musical Instruments, New York, USA	2019				Visited on 18th September 2019
Music Museums – other locations					
The Alexander Graham Bell Museum, Nova Scotia, Canadá	2015				Visited on 19th June 2015
Popular Music Museums in Europe					
The Beatles Story, Liverpool, UK	2011	2019			No information about the precise dates of visit.
British Music Experience, London, UK	2011	2012	2013		No information about the precise dates of visit.
British Music Experience, Liverpool, UK	2019				Interview with curator + photos

Magical Beatles Museum, Liverpool, UK	2019				Visited on 27th January 2019 Interview with manager + photos
Museu do Fado, Lisbon, Portugal	2013	2013			Visited on 7th June 2013 Interview with director + photos
Abba, The Museum, Stockholm, Sweden	2017				Interview with director's assistant + photos
Scenkonst Museet, Swedish Museum of Performative Arts, Stockholm, Sweden	2017				Interview with project manager + guided tour + photos
Rockheim, The National Museum of Popular Music, Trondheim, Norway	2017				Interview with two curators and one librarian + guided tour + photos
Ragnarock, The Museum for Pop, Rock and Youth Culture, Roskilde, Denmark	2017				Interview with curator + guided tour + photos
Popular Music Museums in the USA					
The Grammy Museum, Los Angeles, USA	2016				No information about the precise dates of visit.
Museum of Pop Culture, Seattle, USA	2016				Phone interview with senior curator + photos
Temporary Music Exhibitions in Europe					
Opera: Passion, Power and Politics, V&A 30 September 2017 to 25 February 2018				Music Director – Antonio Pappano Sound Design – Fray Studio	
Temporary Popular Music Exhibitions in Europe					
Postmodernism, V&A, London, UK, 2011	2011				No information about the precise dates of visit.
David Bowie Is, V&A, London, UK, 2013	2013	2013 (the following day)			No information about the precise dates of visit.
Carlos do Carmo, 50 anos, Cordoaria Nacional, Lisboa, Portugal 17 April to 20 September 2014	2014				Visited on 15th September
70 Cavaquinhos, 70 Artistas, Mosteiro dos Jerónimos, Lisboa, Portugal 28 November 2014 to 11 January 2015	2015				Visited on 8th January 2015
You Say You Want a Revolution? Records and Rebels 1966-1970, V&A, London, UK, 2016/17	2016				No information about the precise dates of visit.
Exhibitionism, The Rolling Stones, 2016, Saatchi Gallery, London, UK	2016				No information about the precise dates of visit.

Exhibition					
The Velvet Underground – New York Extravaganza, 2016, Philharmonie de Paris, Paris, France	2016				Photos
Pink Floyd: Their Mortal Remains, V&A, London, UK, 2017	2017	2017(the following day)			Interview with curator and Theatre and Performance Department director
Michael Jackson: On the Wall, National Portrait Gallery, London, UK, 2017	2017	2017(the following day)			Visited on 11st September 2018 Photos
Musonautas, Visões e Avarias, 1960-2010: 5 Décadas de Inquietude Musical no Porto, Galeria Municipal do Porto, Portugal 7 September to 18 November 2018	2018			Sound and Image by Nuno Aragão	Visited on 4th November 2018
Double Fantasy: John & Yoko, Museum of Liverpool, UK, 2018/19	2019				Visited on 26th January 2019 Photos
Electro, De Kraftwerk à Daft Punk, Cité de la Musique, Paris 9 April to 11 August 2019	2019				Visited on 5th May 2019
Paris- Londres, Music Migrations 1962-1989, Musée de L'Histoire de L'Immigration, Paris 12 March 2019 to 5 January 2020	2019				Visited on 19th November 2019
Stranger than Kindness: The Nick Cave Exhibition, Black Diamond, The Royal Library, Denmark 8 June 2020 to 7th August 2021	2021				Visited on 24th July 2021
Temporary Popular Music Exhibitions in the USA					
Making Music Modern: Design for Ear and Eye, MoMA, New York, USA, 2014-16	2015				Visited on 11th April 2015 Interview with curator + photos
Bjork Exhibition, MoMA, New York, USA, 2015	2015	2015(the following day)			Visited on 10th April 2015 Photos
Frank Sinatra, An American Icon, New York Public Library, New York, USA, 2015	2015	2015			Visited on 13rd April 2015 Photos
Play it Loud: Instruments of Rock and Roll, Met Museum, New York, USA 8 April to 1 October 2019	2019				Visited on 18th September 2019
Charlie Chaplin, L'Homme-Orchestre, Philharmonie de Paris, Musée de La Musique, Paris 11 October 2019 to 26 January 2020	2020				Visited on 5th January 2020
Sound Art Exhibitions in Europe					
Soundscapes, National Gallery, London, UK 8 July to 6 September 2015	2015				Visited on 4th August 2015

Bill Fontana. Shadow Soundings, Maat, Lisbon, Portugal 4 October 2017 to 26 February 2018	2018				Visited on 22nd January 2018
Soundhouse: The Listening Body, Barbican, London, UK 6 September to 4 October 2018	2018			Curated by Nina Garthwaite and Eleanor McDowall	Visited on 12th September 2018

Sound Art Exhibitions in the USA

Soundtracks, SFMoMA, San Francsico, USA 15 July 2017 to 1 January 2018	2017				Visited from 20 to 29 December 2017

Other Sonified Exhibitions Europe

The Future Starts Here, V&A, London, UK 12 May to 4 November 2018	2018			Sound Design by Sam Conran & Emmett Glynn, Fourpin Sound	Visited on 12th September 2018
Frida Kahlo: Making Herself Up, V&A, London, UK 16 June to 18 November 2018	2018			Composition and Sound: Ben and Max Ringham	Visited on 12th September 2018
Videogames: Design/ Play/ Disrupt, V&A, London, UK 8 September 2018 to 24 February 2019	2018				Visited on 12th September 2018
Christian Dior: Designer of Dreams, V&A, London, UK 2 February to 1 September 2019	2019			Sound Design by Reno Isaac	Visited on 3rd May 2019
Stanley Kubrick: The Exhibition, The Design Museum, London, UK 26 April to 17 September 2019	2019				Visited on 8 May 2019
Tim Walker: Wonderful Things, V&A, London, UK 21 September 2019 to 8 March 2020	2019				Visited on 22nd September 2019

Other Sonified Exhibitions USA

Alcatraz Prison, San Francisco, USA	2017				Visited on 20 December 2017

Other Sonified Exhibitions – other locations

Our Living Languages: First People's Voices in British Columbia, Royal BC Museum, Victoria BC, Canadá 21 June 2014- June 2017	2016				Visited on June 2016

Online Museums

Museum of Endangered Sounds http://savethesounds.info	2020	2021			No information about the precise dates of visit Second visit on 27th January 2021
Museu Nacional da Música, Lisboa Main exhibition for Google Arts and Culture	2021				Visited on 28th January 2021
Voma: The World's First Entirely Online Art Museum https://voma.space	2021				No information about the precise dates of visit
Globale: Virtual Sound Gallery | Center for Art and Media Karlsruhe https://zkm.de/en/event/2015/09/globale-virtual-sound-gallery	2021				No information about the precise dates of visit

Online exhibitions					
Beethoven Everywhere Exhibition for Google Arts and Culture	2020				Visited on 17th December 2020
Soundcities https://www.soundcities.com/index.php	2021				No information about the precise dates of visit
Sonic Futures https://www.scienceandmediamuseum.org.uk/whats-on/sonic-futures 25th September 2020 to 1st May 2021	2021				Visited on 6th March 2021
Sonic Chatroulette https://www.newmuseum.org/exhibitions/view/sonic-chatroulette	2020				Visited on 6th March 2021
#Sonic Friday https://blog.scienceandmediamuseum.org.uk/sonicfriday-story-of-sound-technologies/	2020				Visited on October 2021
Sounds From the Global Covid-19 Lockdown https://citiesandmemory.com/covid19-sounds/	2022				Visited on January 2022

As my interest to the subject of sound in museums emerged in 2011, I started to place a vivid effort in visiting the largest number of sound-based multimodal museums exhibitions. At this time and during roughly the next seven years, I had in no way envisioned the five-use framework that I have come to develop later (chapter two), and so the exhibitions to be visited were selected only on the basis of my interest to see how and why they exhibited sound and how they depicted musical themes, when it is the case. As the five-use framework emerged in 2018, informed by several theoretical insights that had been increasingly becoming clear to me, my observation of the exhibitions was informed by the interest in testing the coherence of the framework and the strength and limits of each category.

As to the qualitative analysis of a sound-based multimodal museum practice, the case study selected is the installation-work *The Visitors* by Ragnar Kjartansson, which analysis is deployed in chapter three. Two main reasons lead me to select it as a case study for my thesis. Since my first visit to this installation-work, my experience was memorable, exhilarating, and overwhelming. I have also found the musical sound unique and effective and thought it could constitute an appropriate case for demonstrating the potentialities of sound for museums exhibitions. In addition, this much acclaimed multisensorial installation-work by the press constitutes an excellent case for examining how the music combines with the visual, textual, and spatial modes, stimulating museumgoers representationally and experientially. The fact that the San Francisco Museum of Modern Art gave me the opportunity to interview museumgoers who experienced the installation-work also contributed to my selection. Indeed, I wanted my analysis to encompass the museumgoers who have a formative role in accounts on how meanings come into being. For my analysis of this case study—I applied approaches from multimodality in keeping with how it deploys sound as one mode nestled among a multimodal ensemble (visual, spatial, textual) and conducted interviews with museumgoers. The multidisciplinary approach provided an understanding of how the different modes deployed in building the installation-work are used to create meaning both singularly and in articulation, in addition to their effectiveness in stimulating patrons representationally and experientially (emotionally and sensorially).

Ethnographic work

Either for analysing sound-based multimodal museum practices or analysing the case-study *The Visitors*, my interest in ethnography links to how the researcher builds knowledge not as an external observer, but as from within of the phenomena observed. My use of ethnography was not thus with a view to yield an in-depth ethnography for each of the sixty-nine exhibitions considered for developing the five-use framework for sound-based multimodal exhibitions. I have rather attempted to produce an ethnography of a subject which is sound-based multimodal museum practices. Indeed, I see adopting the ethnographic method as a way of shaping knowledge. I attempted to incorporate both the views of museum practitioners, museumgoers and my own analysis. I also sought to understand the principles and concepts underlying sound-based multimodal museum exhibitions such as to produce a compelling and comprehensive portrait of these practices.

The article *Ethnographies as Texts/ Ethnographers as Griots* (Stoller, 1994) has been an important reference in my work, helping to think through issues such as the discursive voice, authorial reflexivity, representations of a culture, the phenomenology of field encounters, and the need for the senses employed in ethnography to become more diverse. The article is particularly insightful in demonstrating the value of ethnographers to both take a reflexive approach, i.e., "[…] confronting themselves politically, epistemologically, and aesthetically" (Stoller 1994, 363), and crafting multimodal texts to represent the many complexities of cultures. It is moreover important in showing how ethnographers are implicated in the work they produce, making me aware that in producing the current thesis I am, either explicitly or implicitly, speaking of myself. The subject I have chosen to tackle, and the perspectives I have adopted all encode my ethnographic self.

Social semiotics and multimodality

This section introduces the multimodal analytical approaches which I have applied in the analysis of the installation-work *The Visitors*, namely the *grammar of visual design* for the analysis of the visual resources, *discourse analysis*, for the analysis of the lyrics of the song, and the *social semiotics of sound*, for the analysis of the music deployed. Because each analytical approach has very specific tools, I have opted to place the explanation of my use of these tools in three appendixes: Appendix A deals with the

grammar of visual design; Appendix B focuses on *discourse analysis*; and Appendix C discusses *social semiotics of sound*. Here I will outline the approach that most distinguishes multimodality's methods globally.

My interest in deploying multimodality's concepts and tools in the analysis of my case study is threefold: on the one hand, in order to more effectively interrogate the reality portrayed by the installation-work *The Visitors*, I aim at analysing the different modes in use both separately and in combination. Together with this, there is the need to ascertain the installation-work's social usages by museumgoers, an approach which multimodality's concepts and tools take into account, as I will discuss below. Lastly, my interest in multimodality is due to its capacity to enable the incorporation of non-discursive information and expressive and impressive dimensions into communicative processes (Vannini 2019). I thus rely on multimodality to grasp the actual effectiveness of the sonic mode, in combination with the visual, the textual, and the spatial modes for the emergence of representational, and experiential (emotional and sensorial) meanings.

Multimodality stems from social semiotics which studies human signifying practices under specific social and cultural circumstances. Multimodality thus strives to explain meaning making as a social practice by establishing relationships between texts (texts here understood in a broader sense, i.e., encompassing virtually every instantiation of communication whether logocentric or otherwise) and contexts. Social semiotics moreover perceives signifier and signified as an indivisible unit. This is a field of enquiry that engages with social theory (Leeuwen 2005, xiii). The most distinctive assumption of social semiotics, and hence of multimodality, is the adoption of the term *semiotic resources* instead of *sign* given that, rather than regulated by codes or exclusively syntactic rules, language or any other communication mode is "affected by its use" (Leeuwen 2005, 3). Meanings are thus established from the "resources available to real people in real social contexts" (Kress and Leeuwen 2006[1996], 10). By drawing on social semiotics in my analysis of the installation-work *The Visitors* I understand the images, text and sound to be semiotic resources, that is, signifiers that have a "semiotic potential" based on their prior uses. Moreover, that people have a set of resources from which to select their choice and agency is particularly important for explaining meaning in social semiotic frameworks (Kress 2004[2001], 31). User choices become meaningful in keeping with their ability to select which semiotic resources to use from a "range of elements within a paradigm" (Kress 2004[2001], 31). In considering selection and choice,

social semiotics also acknowledges how meanings emerge from a "relation of reference" (ibidem, 31) in opposition to one single option which denotes no meaning. What then happens is that the meaning of semiotic resources is never explained in terms of inevitability but rather from user motivations, which does not exclude the forces of convention from simultaneously operating. Interpretative frameworks developed on these grounds rely on research on how resources are used, an approach which aligns clearly with ethnomusicological assumptions and methods.

Bronislaw Malinowski (1884—1942) was greatly influential in several social semiotic dimensions. Within the scope of the anthropological research he undertook in the Trobriand Islands (South Pacific), he pioneered in distinguishing the *context of situation* and the *context of culture*—notions that have since been consistently attributed a structural role in social semiotics and its derivative frameworks (Halliday and Hasan 1985). Upon returning to the UK from his fieldwork in the Trobriand islands, Malinowski encountered great difficulties in attempting to explain his ideas about the Trobrianders to his colleagues, an experience that led him to realise the need to provide two additional types of information alongside the anthropological research: the *context of situation* featuring what is specific to and distinctive of the text in an immediate moment, and the *context of culture* featuring what meanings and assumptions people share across the entire cultural background involved in constructing the text. After Malinowski, Firth (1890—1960), Malinowski's student, applied both these notions to linguistics to demonstrate that words only have meaning in real life and not in the dictionary. The will to say directly links to the context of use and not solely to the meaning of the words. Firth furthermore demonstrates how languages are brought about by shared cultural practice (context of culture) and by the very specific dispositions assisting the communicative acts (context of situation). In addition, Firth spotlights the pragmatic dimension of languages in that languages and semiotic systems primarily fulfil user needs, that is, they meet the specific requirements of usage.

These formulations have further originated two directions: a francophone trend developed by the work of M. Pêcheux, Michele Foucault and P. Charaudeau, among others; and an anglophone approach which was developed into Systemic-Functional Linguistics by Halliday, Critical Discourse Analysis by Fairclough, T. van Dijk and R. Wodak, Discourse Analysis by D. Schiffrin and D. Tannen, and Multimodal Discourse Analysis by Gunther Kress and Theo van Leeuwen. The analytical frameworks deployed

in the case study all fall into the anglophone tradition. A variety of schools successfully adapted this multimodal framework to more specific semiotic systems such as *spatial discourse analysis* developed by Ravelli (2000) and Ravelli and McMurtrie (2016), *multimodal film analysis* developed by Wildfeuer (2014), and the *social semiotics of sound* (Leeuwen 1999)—in addition to the aforementioned *grammar of visual design* developed by Kress and van Leeuwen (2006[1996]). Other contributions to this approach (Flewitt et al. 2011[2009]; Jewitt 2011[2009]-a, b, c; Kress 2003; Kress and Leeuwen 2006[1996]; Mavers 2011[2009]; O'Toole 2011[1994]; Pang 2004; Stenglin 2011[2009]) also informed my analysis.

Theo van Leeuwen (1999), developed his analysis of sonic events in his book *Speech, Music, Sound*. Three reasons led me to adopt the perspective and analytical tools he proposes: (1) the framework has proven very effective in the analysis of the experiential dimension;[26] (2) it serves the analysis of how the different modes (visual, textual and sonic) are grounded on the same principles for the analysis to achieve coherence; (3) it reaches well beyond the strictly semiotic-hermeneutic approaches.[27]

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[26] Van Leeuwen's (1999) work consists of developing a framework to analyze sound in terms of sense-making on the assumption that both sign producer and sign interpreter are involved in the activity of making meaning with and through sound (Leeuwen 1999, 193). While incorporating principles from phonology, musicology, the psychology of perception, and conceptual metaphor theory, his framework relies on systemic-functional ideational, interpersonal and textual metafunctions. He argues, nonetheless, that sound is more prone to yielding interpersonal and textual rather than ideational metafunctions (meanings).

[27] The semiotics of music unfolds into several projects and frameworks: *semiotic or hermeneutic*, *cognitive or embodied*, and *social and political* (Salgar 2016). Emerging from these three competing basic understandings of music comes the dichotomy: *music as structure* vs. *music as experience*. *Semiotic or hermeneutic*—Leonard Meyer, Raymond Monelle, Kofi Agawu, Jean-Jacques Nattiez, David Lidov and others—are object and structuralist oriented and grounded on the notion of "music as structure" (Brandt and Carmo 2015). Although interesting, frameworks of this remit tend to sidestep the role of listeners in meaning making processes in favour of assessing the music's internal structures by analysing the musical score. In general terms, these frameworks replicate linguistic analytical models on the basis of a dyadic rationale (signifier and signified). S*ocial and political* approaches have also developed through focusing on how power and society intertwine through musical sound. This constitutes a fundamental perspective, as Salgar (2016, 24) argues, to improve "[…] our understanding of the enormous capacity of music to influence our societies, our politics, and our economies." The most relevant contributions within this framework have been produced by Theodor Adorno, Philip Tagg, Simon Frith, and other ethnomusicologists, anthropologists, sociologists, and historians (Salgar 2016, 24).
Finally, *Cognitive* or *embodied* approaches draw on musical cognition and on the notion of "music as experience" (Brandt and Carmo 2015). Typically, they extend the aforementioned dyadic approach to a triadic concept that does account for the role of the sign user. Among these, the pragmatic approaches stand out as a paradigm shift in that they move away from the Saussurean tradition. An exponent of this Anglo-Saxon approach is Peirce's Theory of Signs, which has been foundational to understanding "human perception, experience, and thought" (Turino 2012). Other relevant authors include Diana Deutsch, Mark Johnson, John Sloboda, Lawrence Zbikowski and, more recently, Rubén López Cano (Salgar 2016, 24)—and also social semiotics of sound and music by Leeuwen (1999). I am particularly sympathetic of this trend because it examines the relationships between sign vehicles, sign users, and the processes involved in the interpretation of signs (Brandt and Carmo 2015). Peirece's theory of signs seems particularly

Indeed, alongside paralleling the systemic functional approaches applied to *The Visitors*' visual analysis, namely Gunther Kress and Theo van Leeuwen's *The Grammar of Visual Design*, van Leeuwen's analytical framework specifically designed to analyse speech, music and sound significantly falls into the realm of pragmatics, which approaches music's sense-making by investigating the relationships between signs, users, and processes that assist in sense-making. His framework likewise prefers the term *semiotic resources* to that of *signs* in that sense making is not defined exclusively in ontological terms but rather in terms of "dispositions to react to stimuli" (Reybrouck and Maeder 2017, 9). Sign producers choose semiotic resources[28] according to their interests at the moment of production, as do sign interpreters interpret the semiotic resources according to their interest at the moment of interpretation. Ultimately, semiotic resources proffer ways of sharing meanings we experience subjectively. In addition, both sign producers and sign interpreters act according to the social constraints under which they live. In detail, van Leewuen's framework is strongly materially oriented, i.e., particularly attentive to the interactive meaning of musical articulatory parameters (such as *perspective*, *time*, *interacting sounds*, *melody*, *voice quality*, and *modality*).

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interesting to me. I have, nonetheless, opted to draw on van Leeuwen's framework in keeping with it parallels the frameworks used for analysing the other modes.

[28] Similar to the methods applied to visual analysis, van Leeuwen deploys the term semiotic resources instead of signs thereby heralding its signifying potential.

CHAPTER TWO — SOUND IN MUSEUMS: A FIVE-USE FRAMEWORK

This chapter interrogates how sound has been conceptualized and exhibited in museums from their inception as public institutions in the eighteenth century up to the present. Although sound has become increasingly part of the curatorial practices of museums, the uses of sound remained unmapped and underexamined. This chapter proposes a typology of sound-based museum practices and a mapping of exhibition practices. It addresses the following questions: In what ways have museums been using sound in their exhibitions since the institutionalization of the public museum up to the present? What are the concepts and assumptions that underpin these uses? What is the structuring framework? My goal is twofold: to account for the diversity of sound-based museum practices and to stimulate further research into the signifying opportunities afforded by such practices.

I draw on my observations of sixty-nine exhibitions, and extant academic literature on the subject. In terms of the materials articulating the narrative, all the aforementioned exhibitions are multimodal in that they make use of the visual, the textual, and the sonic. The typology that I propose, nonetheless, is based exclusively on the sound mode given that my thesis focuses on sound. Using the deployment of sound as a criterion, I argue that sound-based multimodal exhibitions in museums tend to cluster into five categories: *sound as a "lecturing" mode*; *sound as an artefact*; *sound as "ambiance"/soundtrack*; *sound as art*, and *sound as a mode for crowd-curation.* The boundaries between these categories are not clear-cut, but rather fluid and sometimes overlapping. I furthermore draw on the distinction between the visual and oral/aural epistemologies to which I refer in chapter 1, emphasizing that one or the other inform the different categories.

Between 2011 and 2021, I visited fifty-nine onsite and ten online museums and exhibitions. Of the onsite exhibitions, fifty-one were the permanent exhibitions of music museums or temporary exhibitions focusing on musical themes (see the section on methodology in chapter one). Exhibitions focusing on popular music themes and artists formed the majority in keeping with how it constitutes the genre that has most often pioneered the exhibition of musical sound. I observed exhibitions once or twice. When viewed twice, these visits occurred on the following day. Whenever I was allowed, I documented the exhibitions in photographic form. In many cases, prior to the visits, I interviewed museum curators or directors in order to understand the ideas and processes

that informed the exhibitions. Throughout the chapter, I draw upon several exhibitions that I visited to illustrate my argument. As to online exhibitions, I analysed four permanent and six temporary exhibitions. Online museums and exhibitions were revisited whenever I needed to rethink my ideas

The ways in which sound materials have been deployed in museum exhibitions and the parallel listening practices are diverse. Furthermore, they are driven by a complex interplay of circumstances, including: the underlying epistemological orders and their conceptual sound-related constructs, the wider social and cultural contexts in which these are enmeshed, and existing and emerging technological devices.

In general, museum practices have been visually driven ever since the emergence of the public museum (Cox 2015, 215-6; Bubaris 2014, 392). According to Cox, the museum is, indeed, a "viewing mechanism." It has long been committed to the job of "civilizing" museumgoers by applying visual control and power (ibidem)—an understanding that is shared by Tony Bennett (1995, 59-69; 2011). Svetlana Alpers (1991, 26) also expands on the notion of "the museum as a way of seeing," an expression designating museums' longstanding commitment to collect artefacts that are of visual interest in a culture, to herald those objects as if they were objects of art that stimulate museumgoers to develop an "attentive looking."

Visual practices were considered by Duncan Cameron to have reached their heyday during the time of the "temple museum" of the nineteenth century (Karp and Lavine, 1991), combining the roles of promoter of nationalisms, repository of colonial appropriation and guardian and classifier of traditional treasures. This visual inclination, moreover, was reinforced because technologies for exhibiting sound in museums were lacking until the 1990s/2000s when sound-reproduction technologies for museums developed more effectively (Stocker 1995).

Since the 1980s, new perspectives underlying museum exhibits have emerged out of a diversity of shifting and ongoing processes. At the heart of these is the understanding that, in being mediated by language, knowledge is not fixed but arbitrary and flexible (Derrida 1997[1974]) which has come to relativize the significance and stability of narratives. This shift ended up broadening the scope of the themes deemed worthy to be addressed in museums, creating unexpected representational possibilities (Moore 1997). This shift moreover disrupted the conventional notion of the museum as a visual

mechanism and fostered a renovation of museum practices falling into the so called "new museology" (see footnote 9). In her introduction to the seminal book *A Companion to Museum Studies* (2011), Macdonald insightfully delineates this new museology practice. Three keys points that the author states should be stressed: a shift in objects' meaning which is now seen not to be inherent but rather situational and contextual; a new attention given to museumgoers who have become the drivers of museum practice; and a new significance attributed to the role of marketing and entertainment in museums' management. In representational terms, an expanded body of themes started to be addressed, experimented, debated and depicted in its complexity (Bal 1996; Garoian 2001; Janes 2009; Lord 2006; Mason 2011). In interactional terms, these new themes facilitated museums to assume new social roles. In effect, the "new museum" has shifted conceptually from "[…] being collection-centred to being community-centred and for the public" (Vermeeren et al. 2018, 2), a shift which has led museums to adopt curatorial practices specifically designed for the public to engage with experientially, and to develop a sense of belonging and identification (Macdonald 2011, 8; Falk 2009; 2006). In addition, research proving that people learn primarily by experiencing and that processes underlying meaning-making and engagement are made up of integrating prior knowledge, experiences, memories, choice-control (Falk 2006, 155; Falk and Storksdieck 2005; Falk 2009; Falk et al. 2011; Macdonald 2013), emotion and a sense of nostalgia (Leonard and Knifton 2015, 161) has provided the grounding for museum practices to shift and to embrace a commitment to deliver more engaging and inclusive exhibitions (Basu and Macdonald 2007; Roppola 2014[2012]; Vermeeren et al. 2018). This shift has moreover allowed museums to work towards decreasing divisions of class, gender and ethnicity (Fyfe, 2011, 36) with a view toward increasing cohesive communities (Crooke 2011, 170; 2007). Novel technological devices such as headphones, directional speakers, sonic beams and hypersonic sound technology, speakers activated by sensors when visitors stand in front of them (Bubaris 2014, 395) and new digital media technologies enabled curators to bring sound into the museum and to exhibit it diversely.

Simultaneously, as modern neuroscience has demonstrated that humans are full-body sensors and experience the world multisensorially (Levent and Pascual-Leone 2014, xviii), museums have started to stimulate senses such as hearing, smell and touch. In short, at the beginning of the twenty-first century, the museum is becoming a "multimedial museum" (Dziekan 2012, 12) and a "sensory gymnasium" (Howes 2014,

265) underpinned by rationales such as experience, embodiment and *emplacement*.[29] This transformation has moreover been particularly propitious for the critical terrain nurtured by sound studies, ethnomusicology, anthropology and acoustics. Acknowledging the significance of sound and integrating it in research on culture, history and theory prompted a readjustment of the balance between the visual and the auditory. Additionally, it has encouraged museums to develop several sound-based multimodal practices serving different exhibitive purposes. Thus, sound has become a medium that carries meaning and an object and artefact of interest to museum curators.

2.1. SOUND AS A "LECTURING" MODE

Practices based on the concept *sound as a "lecturing" mode* emerged in the Western world during the late 18th century and have remained pervasive up to the present. Clearly anchored on a visual epistemology, this concept represents a view of sound from two different, but convergent perspectives. According to the first, sound is deemed irrelevant or disturbing for museumgoers to effectively absorb knowledge. Thus, museum practice in general suppressed sound so that the knowable contained or encoded in material objects and texts on display could be effectively received by museum goers who are understood as containers;[30] taking into account the second conception, sound might be allowed in exhibitions but circumscribed to the role of replacing a live lecture through the use of sound technologies. In terms of the sound-based practices stemming from these two perspectives, two come to the fore: (1) *silence as a "lecturing voice"* which is underlying practices deployed both in musical instrument museums and in museums in general, informed by the first conception; and (2) *sound as a "lecturing voice"*, informed by the second conception, underpinning practices in which sound is used as a surrogate for live oral lectures. Here, the original sound of a live speaking voice is mediated by the phonograph or the gramophone, radio broadcasts, and audio guides. In both cases, sound is never used with a purpose other than that of lecturing museumgoers.

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[29] Term coined by David Howes (2006[2005], 7) to suggest a "sensuous interrelationship of body-mind-environment."

[30] This perspective moreover entwines the behaviourist-positivist learning model described by Falk et al. (2011, 325).

Silence as a "lecturing voice"

Virtually, all museums that were founded in the late 18th century developed under the umbrella of *silence as a "lecturing voice"* notwithstanding the subject that they are devoted to. I am considering *silence as a "lecturing voice"* because silence does not happen in these museums merely by chance. In effect, silence is here the result of a general understating of sound as disturbing, as part of a subliminal visual epistemology clearly in vogue at the time. Sound and silence are indeed a pair in that one cannot exist without the other; within the context of the museum practice, the ways in which we conceptualise one medium has implications to the other.

I use the museum of musical instruments (sometimes also the music museum) as a case study to explore *sound as a "lecturing voice."* Museums of musical instruments developed out of the longstanding and widespread appetite for collecting material objects that emerged as early as the 16th century (Arnold-Forster and La Rue 1993). These collections took the form of cabinets of curiosities, which were dominated by visual approaches. Collecting and lecturing furthermore became two complementary practices, one existing for the other. They evolved into a phenomenon that spread across the Western aristocracy, symbolically expressing its power and domination over both the natural and artificial worlds (Bennett 1995, 36) as well as by showing off their advanced and distinguished world outlook (Pearce 2005[1995]). During the eighteenth century, as a result of the French Revolution, royal and noble collections became public museums, signifying a shift from royal power to that of the state as it formed in the nineteenth century (Bennett 1995, 36).

The desire to collect has indeed been at the origin of many music museums. Virtually every capital or great city in the Western world has its own music museum serving as the public manifestation of an outstanding collection of musical instruments previously gathered by a member of the nobility or someone with large assets. Despite their proliferation, the literature specifically discussing the assumptions and practices of conventional music museums remains scant. Arnold-Forster and La Rue's *Museums of Music: A Review of Musical Collections in the United Kingdom* (1993) stands out for providing an in-depth ethnographic study of British music museums. Among other interesting results, this book details the gathering of former musical instrument collections guided by several principles including: aesthetic interest and admiration, the desire to preserve historical instruments without playing them, the wish to collect

outstanding, representative and singular musical instruments, scientific interests in the development of sound, scientific interests in establishing and displaying examples of musical instrument types and promoting opportunities to hear and play historical instruments (Arnold-Forster 1993, 3-9). Finally, there is the principle of creating a collection that is susceptible to use in performance as indicative of how reality is objectively and safely expressed with, and through, objects of material culture. This predilection with material culture also consubstantiates in curators buying musical instruments exclusively because of their aesthetic interest with some of these not even being intended for playing—as is the case of several instruments in the musical instruments department of the Metropolitan Museum of Art in New York. While Arnold-Forster's study is limited to the UK, it is highly probable that its results broadly reflect the practices of the formative period of music museums across the Western world. In effect, their assumptions are corroborated by my visits to several conventional music museums, all exhibiting musical instruments according to classificatory arrangements with an emphasis on visual rationales. In terms of the classificatory system underlying these arrangements, the most widely used is that devised by Hornbostel and Sachs in 1914,[31] lacking little or no associated contextual information or indications concerning playing techniques. Because of these display options, one can easily gauge the fundamental objective of "lecturing" museum goers who understand sound as disturbing and thus something to be eliminated.

Although the majority of musical instruments and music museums have long nurtured practises falling under the concept of *silence as a "lecturing voice,"* most of them have more recently engaged in renewing their approaches tending to be grounded on aural epistemologies. In addition to displaying musical instruments in conventional arrangements, they started to exhibit the sound of some of their instruments by means of audioguides, thereby shifting to a practice falling into the use of *sound tropes*[32] *as demonstration* as part of the general category of *sound as an artefact* (see below).

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[31] It comprises four main families (Michels 1987[1977], 25): idiophones, aerophones, chordophones, and membranophones. Two principles inform this division: firstly, the way in which the musical instruments produce sound; and secondly, how the instruments are performed and built. More recently, in 1940, a new category was added by Sachs, that of electrophones.

[32] A sound trope is a sound fragment, that is, a portion of a sound event that has been excised from its original context but can nonetheless be recognized. It is moreover recorded on a medium which allows for its reproduction and repetition.

The Historic Musical Instruments Collection of the *Kunsthistorisches Museum* in Vienna exemplifies these practices (see figures 1 and 2) where the musical instruments are displayed in conventional arrangements and the sound of some instruments is heard by means of audioguides, assuming the form of sound artefacts (see figure 3).

Figure 1 — *Kunsthistorisches Museum* in Vienna. General view of keyboards' room. Photo by Alcina Cortez, March 3, 2014.

Figure 2 — *Kunsthistorisches Museum* in Vienna. General view. Photo by Alcina Cortez, March 3, 2014.
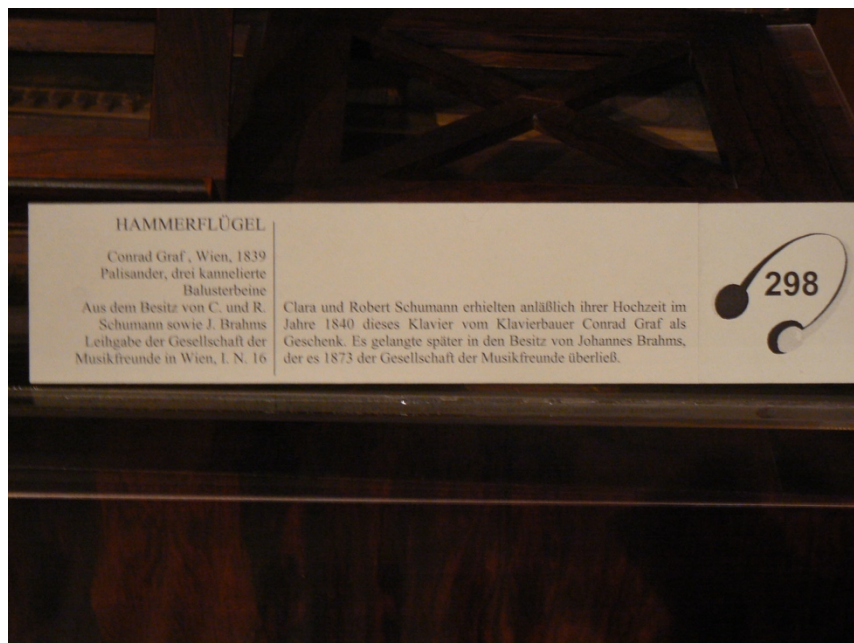
Figure 3 — *Kunsthistorisches Museum* in Vienna, a label providing information about the sound example recorded on the audioguide device. Photo by Alcina Cortez, March 3, 2014

In a similar vein, some music museums embrace strategies such as concerts using some of the instruments that comprise their collections so that museum goers can appreciate their unique sounds. Moreover, some institutions have engaged in modernizing their practice not only by allowing their musical instruments to sound more innovatively, but also by improving the visual mode, by providing more innovative displays. *Staatliches Institut Fur Musikforschung* (see figure 4 and 5)*,* in Berlin, stands out as a representative example of these practices by exhibiting installations showing the hidden interiors of the instruments (see figures 6 and 7), and by holding dedicated sessions for museumgoers to hear some instruments being played (see figures 8 and 9).

Figure 4 — *Staatliches Institut Fur Musikforschung,* in Berlin. General view. Photo by Alcina Cortez, March 6, 2014.

Figure 5 — *Staatliches Institut Fur Musikforschung* in Berlin. General view. Photo by Alcina Cortez, March 6, 2014.

Figures 6 and 7 — *Staatliches Institut Fur Musikforschung* in Berlin. Educational exhibits showing the tools used in piano construction and the interior structure of a modern piano. Photo by Alcina Cortez, March 6, 2014.

Figures 8 and 9 — *Staatliches Institut Fur Musikforschung* in Berlin. Organ demo-concert. Photo by Alcina Cortez, March 6, 2104.

Knowledge about musical instruments encapsulates more than simply classifying, measuring and investigating their acoustic properties. It also extends to researching their social and cultural meanings. Ultimately, musical instruments can be regarded as "social and cultural beings" and are capable of informing us about their lives (Dawe 2011, 196). Their shapes and decoration embody the values, politics and aesthetics of the communities that make and play them. For those reasons, many conventional music museums have engaged in new collecting, and above all in extending their curatorial and display practices. Several conventional music museums have embarked on a process of reconfiguration of their musical instruments' display and approaches. Often, they include popular music instruments and technological apparatuses. They conceptualize *sound tropes as demonstration* as part of *sound as artefact* (see below), rather than of *sound as a "lecturing" mode*. They provide museum goers with the musical instruments' sound by means of displays specifically designed for that purpose.

The Musée de la Musique in Paris is illustrative of these practices. It provides museum goers with live demonstrations of musical instruments (see figure 10) and educational displays (figures 11 and 12). It expanded its collections to include popular music instruments and technologies, and considers popular music songs as an object deemed worthy to be exhibited (see figures 13 and 14).

Figure 10— Musée de la Musique, Paris. Demonstrative session. Photo by Alcina Cortez, May 2016.
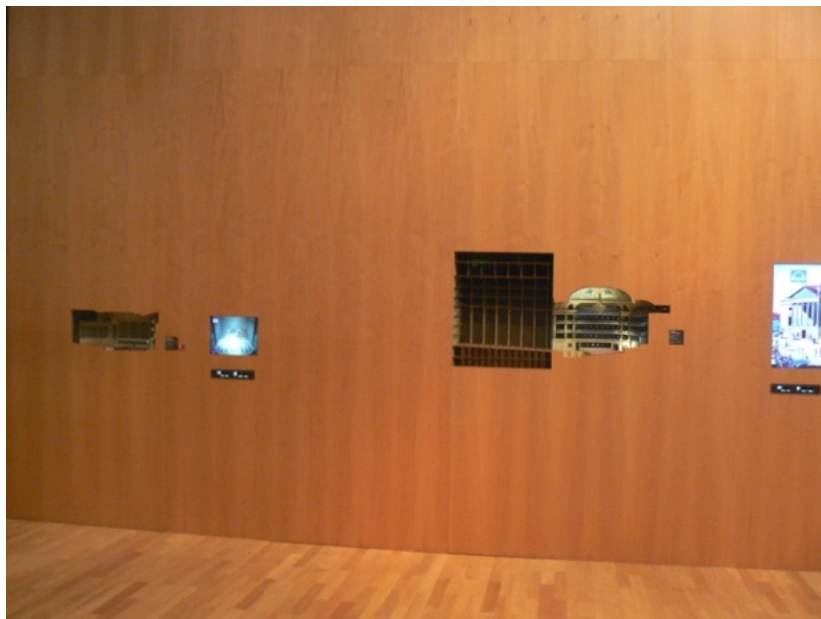
Figures 11 and 12 — Musée de la Musique, Paris. Educational displays: above, showing how to play *La Viole*; below, showing the interior of the L' Opéra de Paris. Photos by Alcina Cortez, May 2016.
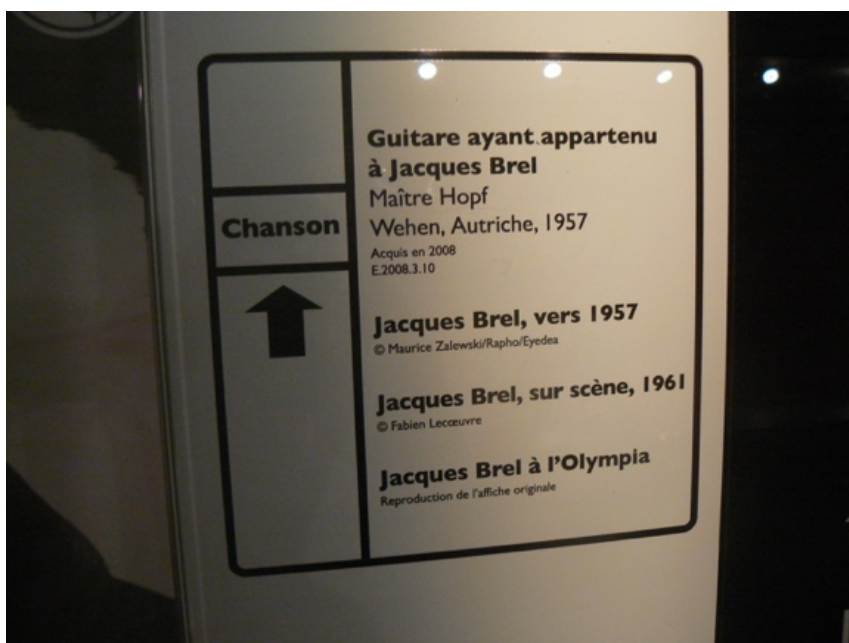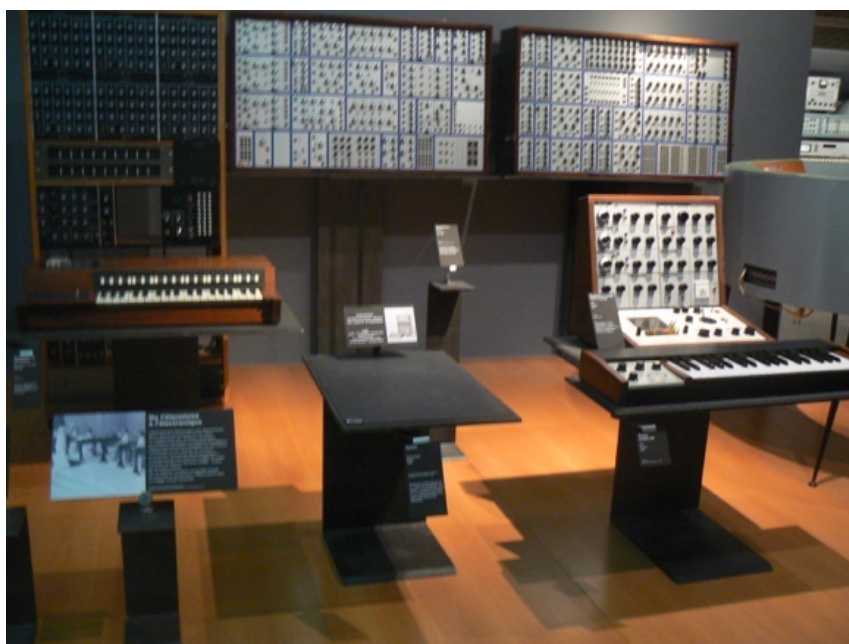
Figures 13 and 14 — Musée de la Musique, Paris. Exhibiting popular music technologies and songs. Photos by Alcina Cortez, May 2016.

Another good example of these innovative approaches, launched in 2002, is the Horniman Museum's music gallery in London (see figure 15). The gallery seeks to draw the visitor's attention to the interrelationship of social and cultural webs in which musical instruments are embedded. It accomplishes this goal by providing information on their

uses and functions in conjunction with aspects of the prevailing human lifestyle, technology involved in their manufacture and their migration to different continents alongside human mobility. By bringing cultural dimensions into the narrative, this gallery clearly adopted a more ethnomusicological approach and created a path for a move away from a single commitment to the object.

The Horniman Museum's new music gallery demonstrates how a different approach to curatorship and museum provision for longstanding collections of musical instruments can be informed, shaped and challenged by contemporary museum studies and music studies. The museum's collection of musical instruments is known to be the most comprehensive in the UK representing music from around the globe. Considering any object created or used for the production of sound, it now numbers over 7500 objects. As to its permanent exhibition, it provides access to a set of 1000 instruments of traditional music, popular music, world music, orchestral music, early music and jazz.[33] Today, the museum's mission is to encourage a wider appreciation of the world, its environments, peoples and their cultures and so the breadth of this vision is reflected in its exhibitive approach. The gallery not only raises as core themes issues relating to organology (see figures 16, 17, and 18), but it also provides a more ethnomusicological focus, that of understanding music and musical instruments in culture (see figures 19 and 20). The narrative encompasses four layers spanning the length of the gallery: (1) *The rhythm of life,* (2) *The ideal sound*, (3) *Listening to order*, and (4) *Hands on. The rhythm of life* seeks to note music's role in the celebration of important stages of human life, commonly called "rites of passage." It also addresses instruments that are associated with specific professions and activities, the recreational, expressive and affective powers of music, and the devotional function of the instruments played in religious worship. *Ideal sound*, in turn, spans how musical instruments are invented, built and developed. *Listening order* chronicles the main lines of development in European woodwind and brass instruments used in orchestral and military music, from the eighteenth to the early twentieth century, and focuses the Bayin and the more recent Hornbostel and Sachs' classification systems. This is illustrated with the exhibition of plenty of musical instruments representing the four main instrument families. Lastly, *Hands on* opens the opportunity for visitors to play representative examples of the instruments in the showcases revealing the museum's strategy to reflect the most recent museum studies

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[33] https://www.horniman.ac.uk/explore-the-collections/musical-instrument-collection/

approach by making the visit more engaging and memorable. Sonification and multisensory learning are pursued throughout the exhibition, whether through directional sound systems playing songs from the instruments exhibited, by exhibiting films relating to and intersecting with many facets of the cultural contexts in which the instruments are found, and by exploring the sound and additional knowledge of a selection of instruments through interactive tables.

Figure 15 — Horniman Museum Music Gallery, London. General View. Photo obtained through Internet search in 2015, but inaccessible at least since 2021.

Figures 16 and 17 — Horniman Museum Music Gallery, London. Display cases: above, non-Western musical instruments; below, several Western flutes (and probably oboes) from different periods. Photos by Alcina Cortez, May 8, 2015.

Figure 18 — Horniman Museum Music Gallery, London. Interpretative table providing information and sound of the displayed instruments. Photo by Alcina Cortez, May 8, 2015.
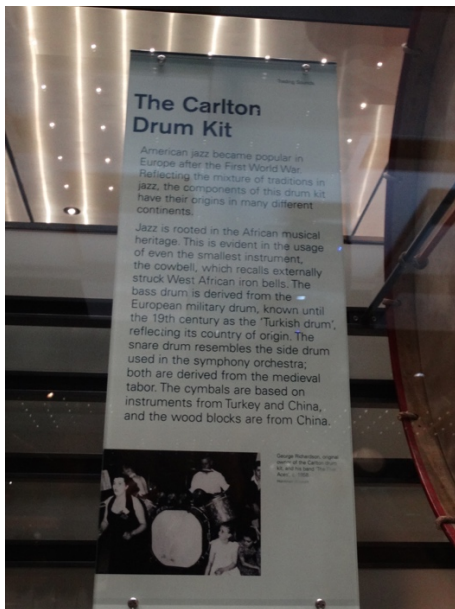
Figures 19 and 20 — Horniman Museum Music Gallery, London. Descriptive text on panels showing the Horniman museum's strategy of describing the musical instruments in the context of their performance: on the left, a panel highlighting the mixture of traditions in jazz music by describing the different origins of the components of the Carlton Drum Kit; on the right, a panel describing the trend to standardize traditional musical instruments so as to produce a Western 12-note chromatic scale using a Russian Balalaika. Photos by Alcina Cortez, May 8, 2015.

In keeping with these innovative practices, some museums shifted away from the idea that a collection of musical instruments should comprise exclusively instruments used in Western "classical music." They have begun to embrace broader approaches that reflect societies and the diversity of their musical practices. Some museums exhibit popular music instruments, equipment and memorabilia, popular musician's costumes and recorded sound.

Sound as a "lecturing voice"

Sound as a "lecturing voice," the second construct falling in the category of *sound as a "lecturing" mode*, encapsulates practices in which sound is accepted in a museum context by assuming the form of an oral lecture. It clearly falls into the remit of visual epistemologies. Some authors demonstrate that sound had already received the greatest attention since the beginning of the 20th century, both conceptually (Sterne 2003) and in museum settings (Griffiths 2013[2008]). According to Griffiths (2013[2008]), sound made its first appearance in museum exhibitions in 1908 or 1909. In effect, oral recorded comments on exhibited objects were played on a gramophone at the American Museum of Natural History in New York in an exhibition on Tuberculosis (Griffiths 2013[2008], 236). Further uses of the gramophone with the objective of delivering information about the objects exhibited were documented in the 1930s. Furthermore, there are references to curators using sound technologies for their museum exhibitions. Mention is made of a museum curator who, as early as 1904, recommended that museums deploy phonographic records to assist in exhibiting their objects (Griffiths 2013[2008], 235), something that had already been done at world fairs and expositions. Griffiths (2013[2008], 241) also reports that the gramophone was put to the service of "listening circles" in museums and libraries. These meetings were arranged so that a small group of patrons could listen to lectures on key museum objects in a dedicated room that were then followed by discussions. During the intermissions, music was played, accompanied by a warning that it was of a "serious character" to dissuade visitors from dancing (Griffiths 2013[2008], 241). Despite deploying sound, these events also fall within the scope of *sound as a "lecturing voice"*[34] as, while silence is replaced by some sound-based practices, these

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[34] Also, more broadly, within the overarching category of *sound as a "lecturing" mode*.

play a lecturing role.[35] The practice of exhibiting sound in museums, nonetheless, seemed to have been used only to a very limited extent in that Griffiths (2013[2008]) only references it on the basis of written documents. I believe that the main significance of the occasions signposted by Griffiths derives from demonstrating how the more substantive and consistent attention that sound today receives across several levels within museum settings has longstanding roots.

Another common practice was that of extending learning beyond the museum settings by means of radiobroadcasts. This consisted of lectures that listeners would hear on their radios while looking at photogravure pictures printed in local newspapers. Referred to as *Roto Radio Talks* or *Radio Photologues*, the idea resembles that of hearing an opera or a concert remotely through the telephone (Griffiths 2013[2008], 237). Schools brought the practice into the classroom by projecting slides synchronized with the lecture broadcasts. The practice was extended to television later in the 1940s with a view to delivering information to a still broader audience. This new trend to democratize the museum through radio broadcast and television, nevertheless, soon encountered detractors who were particularly skeptical. The skepticism was based on images substituting actual objects and media reaching a mass and random, rather than pre-selected and controlled, audience. These are concerns that Griffiths (2013[2008]) parallels with objections raised against the launching of the World Wide Web. It could, furthermore, be argued that radio broadcast practices are at the core of the development of Apps and other interactive strategies deployed by museums' web pages.

Lastly, mention must also be made of the use of audioguides to lecture museumgoers. From the whole sound-based practices embraced by *sound as a "lecturing" mode*, this requires particular emphasis as it has been the most pervasive. According to Bubaris (2014, 394), "the use of audio guides to provide information about the exhibition has been central to the growing presence of sound in museum exhibitions." Gasparotti (2014) notes that the first use of audioguides occurred in 1952 at Amsterdam's *Stedelijik Museum*. It relied on radio broadcast technology to deliver foreign-language

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[35] Griffiths (2013[2008], 242) nonetheless also signposts events in which music was deployed in museums in the early twentieth century for relaxation which represent the true precursors of the shift from occularcentric practices to more multimodal, sensorial and enveloping ones as we now find in contemporary museums. I have found no evidence of applying these technologies in the service of exhibiting musical artefacts, which does not, however, mean that this did not occur.

tours to museum goers (Gasparotti 2014,15). In 1957, Valentine Burton invented the first audioguide, named the "acoustiguide," in the form of a reel-to-reel tape recorder (Fisher 2004, 50)[36] with the purpose of replicating the experience of a guided tour of the museum. An improved version then accompanied the 1976 exhibition entitled *Treasures of Tutankhamen*, which introduced headphones as a common practice in major art museums (Fisher 2004, 50). The contents of these devices remained oral narratives on the exhibits, clearly resembling the notion of *sound as a* "*lecturing*" *mode*. Requiring patrons to follow a linear path, this device was later superseded by a model allowing free circulation inside the gallery by means of the use of keypads allowing museum goers to punch coded numbers for each specific exhibit (Fisher, 2004). This format was then extended to mobile phone apps for which specific multimedia contents containing audio, images and texts were developed. Personal mobile devices have also enabled museums to develop specific podcasts for listening during and after visits.

Concerning audioguide aesthetics, Fisher (2004, 51) points to an affective practice nurturing intimacy similar to surrogate the mother and child relationship. Headphones have furthermore served both the individual and the collective listener in that all museum goers experience the same sound (Sterne 1997, 158-67). Observation is particularly significant, as Sterne goes on to state, as the "[…] inner experience is fundamentally private and, therefore, in need of bridging" (p.167). Fisher (2004, 50) posits audioguides as embedding patrons in "[…] the affective climate generated by the sound script." Despite such positive observations, Mannion et al. (2015) mention that "across the sector, a very low use rate of around 3 percent for permanent-collection audio guides is standard" (no page mentioned). Having emerged as a practice falling under the remit of the overarching construct *sound as a* "*lecturing*" *mode*, audioguide devices have, over the years, shifted into more innovative terrain and are hence supported by constructs such as *sound as an artefact* or *sound tropes as demonstration* (as part of the construct *sound as an artefact*), and *sound as* "*ambiance*"/*soundtrack*. The exhibition *Bjork* held in MoMA in 2015 is a good example in that, instead of delivering conventional lectures, its audioguides provided a soundtrack purposely composed by Bjork for the exhibition (see figure 21).

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[36] Particularly heavy in its earliest form, this first device weighed between fifteen and twenty pounds before assuming a more portable format following the emergence of audiocassettes in the 1960s (Fisher 2004, 50).

Figure 21 — Bjork's exhibition at MoMA, New York. Audioguides Loading System. Photo by Alcina Cortez, April 10, 2015.

In short, *sound as a "lecturing mode"* comprises two approaches towards sound materials. The first is *silence* based on the conceptualization of sound as disturbing to museum goers making it difficult to learn; thus sound should be reduced to silence. The second approach, *sound as a* "*lecturing mode,"* looks upon mediated sound as an effective medium to lecture the museumgoer.

2.2. SOUND AS AN ARTEFACT

The use of *sound as an artefact*[37] in museum displays has emerged much more recently. It derives from developments in music research that have shown how sound tropes can represent a culture in a way that is similar to material artefacts. In the context of this thesis, a museum artefact refers to an object forming "[…] an inseparable couple with humans" (Neustupny, 2013, 169) and speaking for a culture's relational dynamics.

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[37] For Susan Pearce (2006[1994], 9) an artefact is a term that can be used in the same way as an *object* or *thing*; in fact, "[…] these three words are best employed without any particular distinctions being made between them […]." *Sound as artefact* as applied here is distinct from the common understanding, i.e., meaning an accidental or unwanted sonic material resulting from the manipulation of sound.

By analyzing an artefact, we may indeed grasp a given culture's values and practices and how these link to particular expressive codes. Further, I draw on the term *sonic artefact* as posited by Benjamin (2014, 120) that designates a "[…] cultural or ecological sound form produced by and contextually dependent upon tangible, or 'host' artifacts' allowing its reproduction, repetition, and recognition." Kirshenblatt-Gimblett (1998, 18) posits the art of exhibiting to always be an "[…] art of excision, of detachment, an art of the excerpt" thereby suggesting the use of the term *ethnographic fragment* rather than *ethnograhpic object*. In keeping with this understadning, a sonic artefact is also always a sonic fragment and/or an ethnographic sound object.

Kannenberg's (2017) work is a milestone towards understanding sound as an artefact. In his article *Towards a More Sonically Inclusive Museum Practice: A New Definition of the "Sound Object,"* he proposed a revised definition of "sound object" in relation to his own experimental curatorial practice of establishing the Museum of Portable Sound fully dedicated to the collection and exhibition of sounds as cultural objects. Arguing in favour of the non-musical sound and claiming that it has significance as a "component" of natural and cultural heritage, Kannenberg's (2017) article reconfigures the concept of the "sound object" within museological practice by establishing that a sound object is sound that stems from a conventional museum object, a reel-to-reel tape, or a digital recording, and so forth. *Sound as an artefact*, Mortensen (2012, 22-33) argues, results from a museum effect, i.e., from introducing a sound object inside the museum, a practice that has only recently been acknowledged and encouraged (Benjamin 2014; Bubaris 2014; Cortez 2017, 374; DaCosta-Holton 2002; Edge 2000; Kannenberg 2017; Leonard 2014; Leonard and Knifton, 2012; Mortensen 2012, 22-33; Mortensen and Vestergaard 2013).

Due to sound's immateriality, for a sound to be an artefact, it has to stand independently as an object. In other words, it must gain independence by being previously separated from its source of production and context and stored in a support format enabling its transportation and reproduction. In this regard, *sound as an artefact* can be traced back to the advent of recording technologies such as the phonograph and the gramophone. They allowed sound to be captured on physical objects such as wax cylinders, shellac records among other carriers. In the words of Pinch and Bijsterveld (2012, 4 and 5), "sound is no longer just sound" for it has become "thinglike." Such physical enablement has likewise yielded innovative figures of thought such as the *sound*

object (see chapter one), *acousmatic*[38] and *schizophonia*.[39] All of these support *sound as an artefact*. With sound now established as an object in its own right, it was likewise conceptually ready to enter the museum and be used as an artefact.

Sound as an artefact has entered the museum field through two fronts: as a component of popular music exhibitions, and as a demonstration that supports specific narratives requiring sound—as I will detail below.

Popular music as an artefact

Popular music increasingly made claims upon the space provided by museums thereby playing a crucial role in introducing and establishing a notion of sound as an artefact. Several conditions were crucial for museums in the Western world to begin to stage exhibitions based on popular music-related themes and leading practitioners. One was the fact that rock music fans and musicians are aging with several curators and private collectors nurturing a vivid interest in celebrating it through museum exhibitions, a trend that has been reported by researchers (Cohen et al 2015, 7; Guern 2014, 29) and which I had the opportunity to confirm in an interview with the director of Ragnarock museum in Denmark:

> *The story behind this specific museum is… actually quiet long, we have to go around back to the year 2000, when some of the early figures and participants in the earliest Danish rock and roll culture, musicians, etc., started to pass away, and somebody within said 'Well we have to preserve the history, we have to make people aware of that', and that was musicians themselves, journalists, critics, people from the music industry and the idea was, as far as I know, to preserve this culture. They made a society called Danish Rock Academy consisting of people from music business, etc, and they had some large symposiums held at the conservatorium in Copenhagen, the conservatory for Popular Music, or rhythmic music where they invited everyone, they*

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[38] Term coined by Pierre Schaeffer, the founder of *musique concrète*, in his article, *Acousmatics*, (2004[1966], 76-81). Once disconnected from its source, sound can be appreciated exclusively through listening, an experience which is distinct from that of attending a concert, where people decipher sonic events with the aid of sight. The experience of listening without the aid of sight, which Schaeffer calls *acousmatic*, means accessing previously recorded sound objects. Moreover, acousmatic sound became a material to produce music, specifically *acousmatic music*—also referred to as *electroacoustic music* or *concrete music*—a compositional practice that then reached its heyday and applies recorded sounds such as those derived from musical instruments, electronically generated sound, manipulated audio by using effect processors or sound effects and field recordings in a wittingly organized disposition.

[39] Schafer (2004[1973]) also hones in on the consequences of separating an original sound from its source, a phenomenon which he calls *schizophonia*. Having gained an independent existence, "any sonic environment can now become any other sonic environment" (Schafer 2004[1973], 34).

could think of every critic, every journalist, every musician, ya people from all around
the industry and had some discussions about how can we grasp this, how can we do it,
and within those they also had people from the museums and researchers, musicologists
from universities [...] and the idea for the museum was formed there.
(Rasmus Rosenorn, June 9, 2017)

The trend to exhibit popular music's artefacts in museums dew large numbers of visitors. As it proved economically profitable, several cities developed specific strategies to heritagise popular music and artists as a way of promoting their cities and attracting tourism (Cohen 2013). In addition, practices of popular music heritagisation developed online through DIY archives run by fans also played a crucial role in this process (Collins and Long 2015). As to the case of Rockheim Museum in Norway, it was a group of professional archivists that indeed came up with the idea of building the museum:

BB: *There was a forum for archivists, librarians, various organisations that somehow*
work with musical archives in the 1990s.

AC: *In Norway?*

BB: *In Norway yes, they have this biannual conference and... I think it was in 1999, a*
lot of discussions, I guess there have been a lot of discussions in this...

AC: *The conference?*

BB: *Ya, even before, in the earlier years, but then they decided, they establishd a*
working group which wanted to, you know talk to politicians, trying to figure out,
wanting to establish an archive for Norwegian popular music, and then this evolved
into...

AC: *But that was*

BB: *But there is a lot of political involvement and many organisations, various kind of*
people from, from the music business, from, people being active artists, musicians,
politicians, museum people, archive people, were involved in this [...] and researchers
as well.

 (Bjornar Bruket, Rockheim librarian, 6th June 2017)

 The aforementioned circumstances moreover went hand in hand with the work developed in ethnomusicology, sound studies, anthropology and acoustics investigating the acoustic, social and cultural dimensions of sound. As popular music and artists have

been constituted as objects for museum display, scholars emphasized their power to articulate identities, a sense of locality, region, and nation (Bennett and Janssen 2016; Bennett and Rogers 2016; Brandellero et al. 2014; Cohen, 2013), and even trauma (Bennett 2015), as well as the exciting prospects of engendering aesthetic admiration, emotion, pleasure and memories in museum settings.

The first examples of these exhibitions stuck almost exclusively to "visually driven" signifying practices (Cortez 2019, 351; 2015; 2016) in that they mainly replicated the visual exhibitive techniques by displaying record sleeves and audio-technology objects. Subsequent exhibitions, however, have now adopted oral/aural rationales. Indeed, they place great emphasis on exhibiting songs performed by popular music bands and solo musicians, a strategy which has proven to be particularly effective. Their success owed something to an innovative approach that included triggering emotion, eliciting memory and valuing the individual identity of patrons while also locating them as part of a community of fans.

Typically, exhibitions of aural artefacts/songs in popular music exhibitions unfold through two strategies. The first is to exhibit them privately using individual headphones for patrons to enjoy the sounds. The second strategy is to exhibit them publicly through powerful loudspeakers as part of an enveloping strategy aiming to connect patrons as a community. These enveloping strategies consubstantiate in powerfully exhibiting the aural artefacts by relying on cutting-edge technology together with outstanding visual techniques, such as videos, 3D projections and holographic representations. Commonly deployed in order to play the role of *intersections* or *climactic finales* in the narrative (Cortez 2019), they constitute the most thrilling and anticipated moments in which the music attains great value in articulating identities (Stokes 1997[1994]; Born, 2012). Indeed, music enables public (re)presentations of people's deepest feelings, thereby increasing the scope to articulate their collective identities (Turino 2008, 2). Should music be fundamental for people representing themselves to others, it also offers the scope both for unity and for differentiation (Bohlman 2001[1999], 104). This experiential dimension is fully explored in these exhibitions. The fact that the songs deployed are also artefacts representing a culture was, not, however, clearly brought to light in most of the exhibitions that I visited. In fact, curators and museum goers, are accustomed to factual and historical narratives. Further, a full exploration of sound as artefact requires the curatorial work of ethnomusicologists and other researchers working in the field of

popular music studies. That particular expertise is not commonly found among the core curatorial teams. Neither do these teams customarily consult external expertise on these matters.

The travelling exhibition *David Bowie Is*, premiered by the V&A museum in London in 2013, is a notable example. The fact that it has attributed to popular music artefacts a central role in the narrative constituted a turning point for the whole museum practice for years to come. The exhibition was organized in 26 themed sections presenting a retrospective of David Bowie's career and, simultaneously, setting it in a wider artistic context of performance and design. The curators worked for two years on building the narrative, which was then revised by the archivist of David Bowie's collection. The curators seem to be aligned with the contemporary representational critique (Macdonald 2011, 3) in keeping with the contents of a sentence placed at the very end of the exhibition: 'This exhibition has told part of the story, but the rest lies with us, the audience, and the connection we make to the man and the myth'.

In 2017, when I visited the exhibition *Pink Floyd: Their Mortal Remains*, I interviewed Victoria Broackes and Geoffrey Marsh of the V&A, who were the curators for both David Bowie and Pink Floyd's exhibitions. When questioned about why the museum started to stage exhibitions about popular music's figures and themes, both provided significant insights. Geoffrey Marsh highlighted the extent to which David Bowie's activities relate to the V&A's Theatre and Performance department and, more broadly still, with *design* which is the main subject of the museum itself:

> *We didn't do David Bowie just because he is a pop star, we did it because he is in art and culture, he made films and videos and everything, he employs costume designs and the rest of that.*

(Geoffrey Marsh, 20th May 2017)

Victoria Broackes, in turn, spotted three aspects contributing to the new trend of the V&A to stage exhibitions focusing on popular music: the success of a first popular music exhibition on Kylie Minogue which she brought from Australia to London almost by chance; the fact that the museum has a longstanding tradition of collecting materials related to pop and rock at least since the 1970s, and her own passion for music:

VB: *I think it is a combination of things, one is, we did the Kyllie exhibition almost by accident [...] however, it was an astonishing success for the museum, it was actually free, but we had [a lot of visitors] and a lot of very good press. [Kylie] is one of the top performers in the world [...], the people who she worked with, the fashion designers [...] the performance she puts on, the choreography [...] all interesting aspects of being a top live performer, we are the museum of performance, so, it fit into that. That's totally in our subject of image, that is not new, this department of this museum has been collecting rock and pop since the 1970s,*

AC: *And how come you started collecting rock and pop?*

VB: *Because once rock and pop started using designers to present their work visibly, album designers [...] it became part of what we do. Alongside this, also in the museum, our word and image department [has] been collecting posters, graphics, album covers and so, also, since the 1970s, so this is a museum of design, and design in all its forms [...] and music has been a tremendous force in England and the design that goes around has been an importat part of the creative industries. And alongside that there was a personal passion for pop music, that was mine, that was sort of a unleash or aloud to be unleash on the museum, after the success of Kylie and the debates that followed.*

(Victoria Broackes, 20th May 2017)

Both curators moreover highlighted the significant role that the *David Bowie I*s exhibition played in demonstrating the potential of exhibitions focusing on popular music for expanding audiences:

What these shows have demonstrated, particularly Bowie I suppose for the first time, was that there is a large public appetite for these shows.

(Geoffrey Marsh, 20th May 2017)

It's an accidental evolution that now becomes a prime force.

(Victoria Broackes, 20th May 2017)

David Bowie Is features nearly 500 items, with more than 300 from Bowie's personal archive (original costumes, fashion, photographs, drawings by Bowie, manuscript lyrics and videos—music videos, television clips, filmed roles, and tour footage). Above all, the exhibition is remarkable in conveying the notion of sound as artefact which actually lurks beneath the whole narrative. Indeed, the narrative develops hand in hand with the exhibition of many of Bowies' songs. Music had not been exhibited in museums was in part due to the fact that museums lack the appropriate technology to project sound 's elusiveness which probably inhibited the exhibition of sonic objects. *David Bowie Is* thus becomes a milestone in that it provided a model for exhibiting sound in museums in such an effective way. Two innovative strategies were adopted: exhibiting David Bowie's tropes and songs by privately by means of personal headphones distributed at the beginning of the exhibition, and collectively, by deploying an enveloping 3D zone at the end of the exhibition for the museumgoers to jointly engage with the musical artefacts[40] (see figures 22 and 23).

As to the first strategy, museumgoers are given an audio-guide with a Bluetooth system that automatically releases a song as the visitor approaches a specific display. The song thus takes the form of a sonic object to which visitors can keep listening up to the end, or give up by moving on in another direction, as we usually do with physical objects. This system, delivered by the German company Sennheiser, allows different museumgoers to engage with diverse sonic objects at the same time with none of them losing their sonic shape and individuality. The second strategy entails the public exhibition of the sonic artefacts. The most noteworthy example of this approach is the exhibition's climatic finale. Two immense screens—approximately 6 by 6 meters, placed at a right angle from each other and delineating a large zone for people to stay together while watching—play several videos of Bowie's concerts. The images are impressive, and the sequence of videos has many powerful moments, such as when the different screens play an early and a recent version of a particular song at the same time. These musical moments are then followed by moments of silence in which the projection of images is stopped, and the screens become transparent and reveal, behind, a metallic structure made of several squares, each exhibiting a plastic mannequin wearing one of Bowie's costumes as if highlighting his strong relationships to design and the performing

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[40] This zone actually constitutes the exhibition's *climatic finale* as described in the following category *sound as* "*ambiance"/soundtrack.*

arts. Lights flashing on and off in a random rhythm produce an additional effect. In contrast to the music just played, this moment of silence stands as a powerful narrative tool because it leads museumgoers to a reflection, a tribute, a shiver. Although one may argue that silence here becomes a strategy effectively reinforcing David Bowie's status as a rock star, one should also argue for the extent to which it builds a space for museumgoers to connect to the musician in their own way. Ultimately, silence is here the museum effect that makes us distinguish the installation from a regular concert, leading us to think beyond listening to music.

When questioned about why the museum decided to use such strategies for the first time to exhibit David Bowie's music, Victoria Broackes explained:

> So, again, I mean these things are partly opportunity and partly lucky, and partly, because we were, you know, we didn't say ritght to the beginning of the project 'let's get sound sorted out', we waited and you know, and then we talked about heaphones, we talked aboutt the social experience of looking at exhibitions and how heaphones would isolate you, and this again is interesting I think because Sennheiser said to me 'its ok we got open heaphones, there's phone on the outside and you can talk to people as you go around', so I was really into that, and then of course people come to Bowie and they didn't talk [...] they went to their own world and now we're not even using open heaphones [...] this time it was not necessary and also people are much more comfortable with heaphones now, I think, there's a sort of a reputation for headphones and museum.

(Victoria Broackes, 20th May 2017)

Figures 22 and 23— *David Bowie Is* exhibition at the V&A, London. Above, headphones by Sennheiser; on the right, floor-to-ceiling screens, climax and grand finale. Photos by the V&A, 2013.

The Ragnarock museum, opened in 2017 in Roskilde, Denmark, stands out in deploying popular music's artefacts privately by dedicating the walls of an entire room to exhibiting an extensive selection of Danish popular songs. Each song occupies a unique

rectangle on the wall and is accessed by museum goers by plugging a headset into the rectangle thereby emulating a material object (see figures 24, 25, and 26).

Figure 24 — Ragnarock Museum, Denmark. Wall of Danish popular music showing several rectangles, each attributed to a specific song. Photo by Alcina Cortez, June 9, 2017.
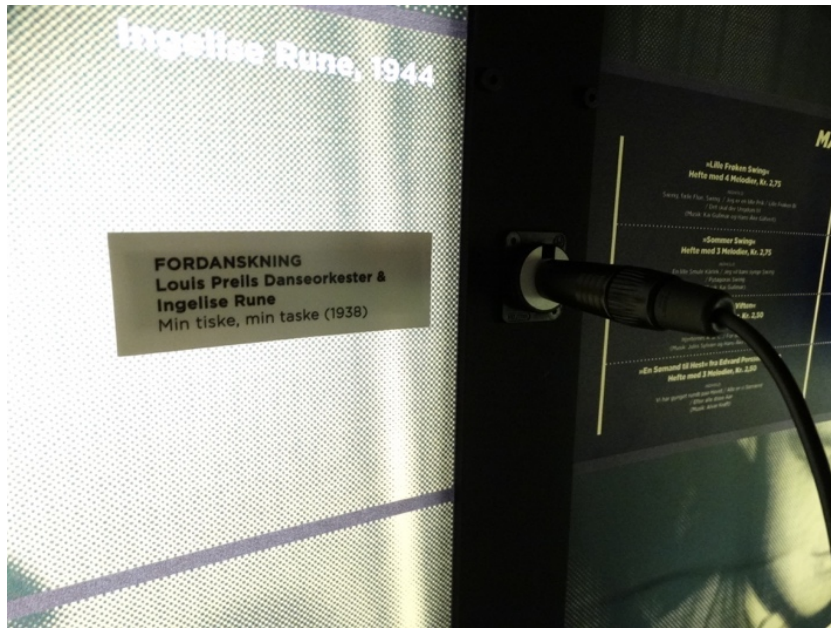
Figures 25 and 26 — Ragnarock Museum in Denmark. A detail of the songs' rectangles and of a plug for headsets. Photos by Alcina Cortez, June 9, 2017.

Several other strategies for exhibiting popular music in a private manner are worth mentioning. The Museu do Fado in Lisbon, Portugal, for example, provides museum goers with two distinct exhibits displaying popular music as an artefact/object. One, more common exhibit, often used in other museum exhibits, is an interactive "table" in which museum goers can select and easily control the song they wish to hear while seated comfortably (see figure 27). Another more innovative approach is a large panel that covers the wall of one of the museum's corridors. It is a photomontage of tens of fado performers, some well-known. There is a number on some of the photos which the visitor can dial on his/her audio guide to hear a fado performed by the artist feature on the wall. This panel is the most effective display of the museum. Not only does it work as a vertical axis that juxtaposes the Museum's three floors, providing them with a discursive unity, but it is also interactive, allowing the visitor to listen to the fado singer they love most or that evokes a special memory (see figure 28).

Figure 27 — The Museu do Fado in Lisbon. Interactive tables. Photo obtained through Internet search in 2013, but inaccessible in 2021.

Figure 28 — Museu do Fado in Lisbon. Fadistas' grand panel. © Câmara Municipal de Lisboa.

As to the strategies deploying popular music in an open manner thereby stimulating communion among museum goers, mention could be made of several climatic finales such as that developed for the exhibitions *Pink Floyd: Their Mortal Remains* (see figure 29) and *Opera: Passion, Power and Politics*[41] (see figure 30), both staged at the V&A in London in 2017/2018, or the interlude for the exhibition *The Velvet Underground-New York Extravagnaza* staged at the Philharmonie de Paris in 2016 (see figure 31). The underlying strategy here is to provide large and comfortable rooms/spaces for people to congregate and engage in music together with the aid of emblematic visual and sonic environments. Such strategies proved particular effective for museums to pursue one of their contemporary aims, namely that of building communities through music's power.

Figure 29 — *Pink Floyd: Their Mortal Remains* staged at the V&A, London. Climatic final (here without museumgoers). © V&A.

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[41] Although not formally a popular music exhibition, I mention it here in keeping with how it was effective in providing a *climatic finale*.

Figure 30 — *Opera: Passion, Power and Politics* at the V&A, London. Final room (here without museumgoers). © V&A

Figure 31 — *The Velvet Underground-New York Extravaganza* at the Philharmonie de Paris. Enveloping interlude exhibiting Velvet Underground's music together with images. © MataliCrasset.

Sound tropes as demonstration

The deployment of sound tropes through fixed headphones in exhibitions is a common technique applied when there is the need to provide an aural demonstration. Typically, this approach integrates exhibitions dealing with a wide variety of topics in which sound tropes are used to demonstrate a particular acoustic phenomenon, historical soundscape, *soundmark*[42] (Schafer 1994[1977], 10) interviews, etc. Whatever the case, sound is treated as an object separated from its original source by means of recording. This approach might be deployed exceptionally or recurrently, depending on the exhibition's theme. Sound serves as a means of conveying a deeper understanding to museumgoers, and features opportunities for experimental variations and controls. Practices of this type can be argued to stem from visual epistemologies, although in no way can aural/oral epistemologies be surgically excluded. The Museum of Portable Sound by John Kannenberg is a noteworthy example in which sound tropes illustrate specific natural and cultural events. Available through an iPhone—thereby endowing sound files with a sense of exclusivity—the museum is accessed by booking an in-person visit through its Web page. Together with the iPhone "venue," Kannenberg offers leaflets with a plan of the museum (see figure 32) and a catalogue with relevant information about the objects displayed. The museum plan parallels a real four-floor museum thereby providing virtual pathways for visitors to create their own itinerary and, correspondingly, a structured and logical access to the sound files—a pioneering approach towards a museum display of sound objects. The leaflet depicts a map of the galleries (see figure 33)— Floor 0 comprises a *Members' Room* and a space for *Temporary Exhibitions*; Floor 1, the *Natural History* gallery, is divided into sections on insects, other animals, and weather & water; Floor 2 is wholly dedicated to *Science and Technology*, ascribing specific spaces to sounds from laboratories and medicine, acoustics, recording history, audio interfaces, glitches, and audio equipment from the twentieth and twenty first centuries; Floor 3 exhibits sound from *Space and Architecture*, namely a section for construction, exteriors & tours; another for doors, windows & fixtures; a third for plumbing, heating, and cooling, and the last for interiors; finally, Floor 4, *Arts & Culture*, is the main area of the museum, comprising nine thematic spaces: art processes,

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[42] Original term coined by Murray Schafer to designate the *soundmarkers* identifying a specific community or culture.

archaeology, bells, transport, food, rituals and events, libraries and archives, museums, and exhibitions of sound. The floors are displayed digitally on the iPhone, and hence, visitors can easily jump from the first to the fourth floor without having to take virtual elevators or escalators.

Figure 32 — The Museum of Portable Sound's devices. © John Kannenberg.

MUSEUM OF PORTABLE SOUND
MUSEUM CAMPUS

1 NATURAL HISTORY
1 Humans
2 Animals
3 Insects
4 Underwater Life
5 Weather & Water

2 SCIENCE & TECHNOLOGY
6 Laboratories & Medicine
7 Acoustics
8 History of Audio Recording
9 Audio Interfaces
10 Machines
11 Glitches
12 20th Century Audio Equipment
13 21st Century Audio Equipment

3 ARCHITECTURE & URBAN DESIGN
14 Construction, Exteriors & Tours
15 Fountains
16 Doors, Windows & Fixtures
17 Plumbing, Heating & Cooling
18 Elevators & Escalators
19 Interiors
20 Railway Stations
21 Walks

4 ART & CULTURE
22 Archaeology
23 Art Processes
24 Food
25 Transport
26 Bells & Clocks
27 Rituals & Events
28 Libraries & Archives
29 Museums
30 Exhibitions of Sounds

Figure 33 — The Museum of Portable Sound. Floor plan of the museum. © John Kannenberg.

Lastly, mention must be made of the case of sound archives. The practices of sound archives[43] of collecting, studying, preserving and, sometimes, also disseminating sound recordings fit in the notion of *sound as an artefact* as they work with a diversity of sound artefacts recorded on physical carriers such as wax cylinders, shellac and vinyl records, magnetic tapes, compact cassettes, compact discs among other carriers. The goal of disseminating their collections has more recently shaped their outreach approaches and practices. Such practices somehow mirror that of conventional museums in that they have developed towards organising and providing integrated access to the collections both

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[43] My objective here is more that of observing that the concept of sound as artefact applies to the archives' scope. This being the case, my approach to the subject is merely tangential in keeping with that archives are not institutions which assumptions and practices can be given consideration within the scope of a small section, as I am giving here, but rather subject for a whole thesis.

online and on site by organising exhibitions. One clear example of this trend is the exhibition *Listen: 140 Years of Recorded Sound,* which was held in 2017/18 (see figures 34, 35, and 36). It was the very first sound-focused exhibition staged by the British Library bringing to public view recordings from the huge resource of the British Library Sound Archive.[44] Informed by the notion of *sound as an artefact*, the exhibition tells the story of sound recording ever since the phonograph's invention in 1877. It reflects on radio's impact in the twentieth century and the importance of sound in recording our lives and cultural heritage. All of the sounds and objects of material culture on exhibition came from the British Library Sound Archive. The British Library has accomplished the huge task of preserving and digitising its archive and making it available for researchers. At the same time, it has made part of this collection available for online listening even while some content is restricted to users at accredited higher education establishments. This exhibition thus stands out as the first onsite event focused on sharing archival content set within a logical narrative.

Many sound archives have similarly developed strategies for their holdings in order to profit from the increased usage generated by providing digital access to collections of sound artefacts. This approach involves adding a "virtual face" (Breaden 2006, 34) by means of presenting online exhibitions which similarly rely on the notion of *sound as an artefact.*

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[44] The British Library owns an extensive collection of 6.5 million unique sound recordings from all over the world. The collection covers the entire range of recorded sound from the 1880s to the present day. These recordings are arranged into nine collections: accents and dialects; arts, literature, and performance; classical music; environment and nature; popular music; oral history; radio and sound recording history; world and traditional music and sound maps.

Figures 34 and 35— *Listen: 140 Years of Recorded Sound* at The British Library in London. On the left, exhibition entrance; on the right, museumgoers interacting with the exhibits. ©The British Library.

Figure 36 — *Listen: 140 years of Recorded Sound* at the British Library in London. Individual cabinet for exhibiting/ listening to sonic artefacts. Photo by Alcina Cortez, 25th November 2017.

Sound as an artefact in digital settings

Some digital museums or exhibitions are similarly anchored on the notion of *sound as an artefact* in that they tend to surrogate their physical model. For example, An example is the Museum of Endangered Sounds (http://savethesounds.info) which is devoted to the preservation of the sound of old technologies and electronic equipment such as the pay phone, the windows 95 start up, a cash register, and many more (see figure

37), or the National Music Museum in Lisbon's page for Google Arts and Culture which displays small videos exemplifying the sound of the exhibited instruments (see figure 38):
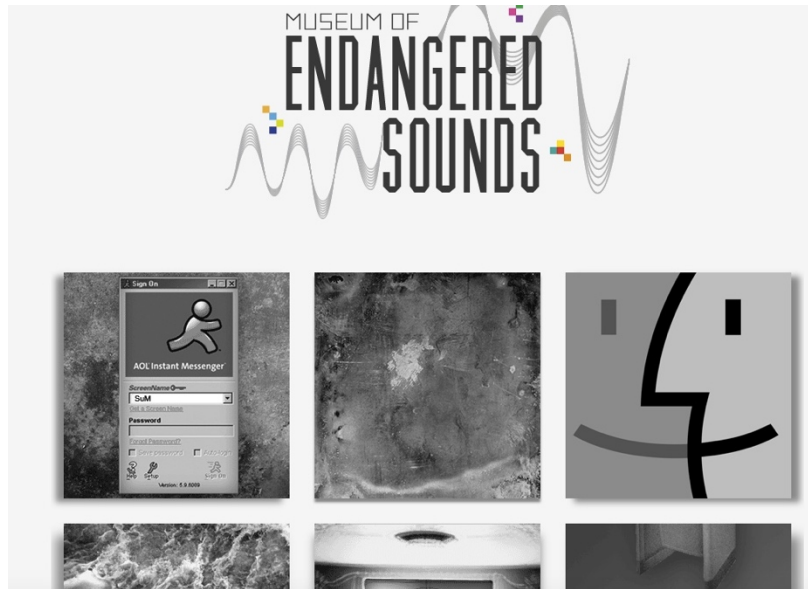
Figure 37 — The Museum of Endangered Sounds. Opening page. Accessed on January 27, 2021.
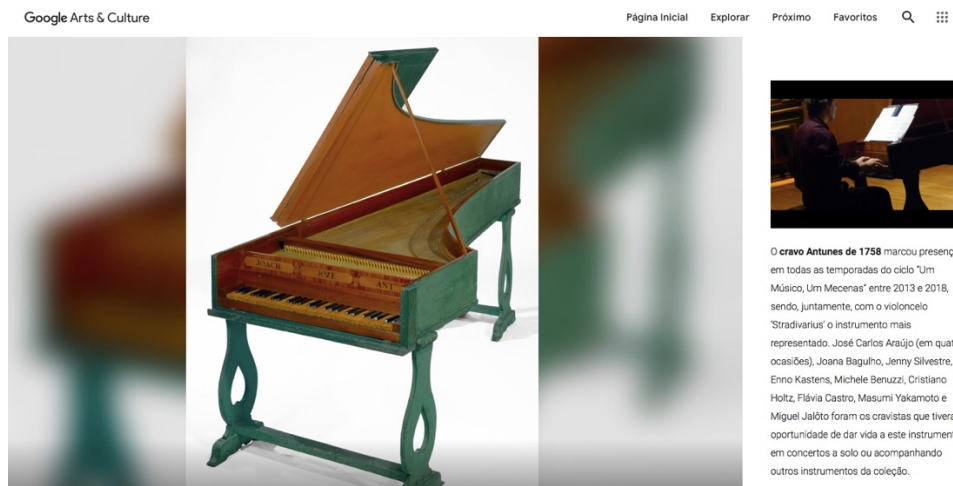
Figure 38 — Museu Nacional da Música, Lisbon. Main exhibition for Google Arts and Culture. Accessed on January 28, 2021.

Sound as an artefact is thus a construct providing entry points to both the logical and experiential. It is customarily deployed in the form of a musical trope in popular music exhibitions, and of an aural artefact demonstrating historical facts or in exhibitions

on acoustics and other scientific exhibitions. Additionally, it exhibits artefacts collected and stored in sound archives.

2.3. SOUND AS "AMBIANCE"/ SOUNDTRACK

Sound as "ambiance"/soundtrack relies on the understanding that sound is inherently significant in emotional terms. Sound is moreover understood to be particularly effective in building spaces delivering the exhibits' major themes in a way that is appealing to the senses. *Sound as "ambiance"/soundtrack* underpins the practice of endowing any given exhibition, whatever its particular subject, with a sonic layer through a thematic, affective, or emotionally evocative soundtrack. There is a direct parallel with film soundtracks in their shared purpose of contributing to both the emotional impact and the narrative drive of the exhibition. Practices grounded on *Sound as "ambiance"/soundtrack* have emerged recently in the wake of the success of the popular music exhibition trend to create immersive sections and climatic finales by exhibiting popular songs. Supported by cutting-edge sound-reproduction technologies, these practices typically operate from within an oral/aural epistemology and may vary from enveloping patrons within a certain time and place through recordings of historical urban sound, presenting a certain theme by articulating it sonically and leading patrons to feel emotionally engaged by establishing a specific sonic mood.

Sound as "ambiance"/soundtrack reckons with concepts deriving from a thread in academic fields approaching the study of sound beyond the traditions of physics and acoustics. One founding concept stems from Murray Schafer's *soundscape* (1994[1977]), which I discussed in chapter 1. The term has furthermore entered into widespread usage (Sterne 2013, 182) and, not uncommonly, is far from Schafer's original concept with its meaning having become all but arbitrary (Kelman 2010; Ingold 2007). More recently, the term *ambiance,* evoking a more sensorially-based understanding of the sonic environment, has come to substitute the term *soundscape*, avoiding its drawbacks (Guillebaud 2017, 4). According to Thibaud (2011), "[…] an ambiance can be defined as a space-time qualified from a sensory point of view. It relates to the sensing and feeling of a place" (accessed online, January 2020, https://www.researchcatalogue.net/view/220589/220590). Thibaud furthermore posits that sound can tune *into* an ambiance, translate the unfolding *of* an ambiance and situate

people *within* an ambiance with each of these dimensions resonating with the aforementioned practices of *sound as "ambiance"/soundtrack*. Another term that has emerged to substitute soundscape is *acoustic environment*, in use at least since 2010 (Jarviluoma et al., 2010). Brown et al. (2017) posit that an *acoustic environment* voices concerns regarding the human experience of a given environment. In methodological terms, consideration should be given to all sound sources that can be heard in a given place, the specific location of the receiver, and the propagation conditions of the space. Brown et al. (2017) moreover note that the term *soundscape*, coupled with acoustic environment, designates a person's perceptual understanding of the acoustic environment within which s/he is positioned.[45]

The outputs of several academic fields also proved particularly supportive of museum practices using *sound as "ambiance"/soundtrack*. The Anthropology of the Senses is of particular significance in redefining the relative positions of the five senses and, correspondingly, in drawing attention to sound (Howes 2005; Classen 1997). Sound reproduction technologies are similarly crucial here. In allowing the dissemination of sound through space, sound technologies have turned location into "an active component of a composition" (Blesser and Salter 2009, 168). Sound technologies likewise enabled an affective spatial construction of museum galleries thereby capitalizing on the different potentials of *sound as "ambiance"/soundtrack*. The idea that sound can construct the museum's space is moreover of the utmost significance given that the effectiveness of this space facilitates social relations (Cox 2015, 218).

Another issue informing this construct is the shift from understanding learning as a mental activity to learning as something that is elicited with, and through, the body. This shift is linked to phenomenology and the observations of Merleau-Ponty who "[…] argued that culture does not solely reside in objects and representations, but also in the bodily processes of perception by which those representations come into being" (Mikula 2008, 152). In his book *Listening and Voice: Phenomenologies of Sound* (2007[1976], 43), Don Ihde emphasises the act of experiencing and advocates that "[…] a theory of perception is already a theory of the body and vice-versa." Finally, there is a set of features typically attributed to sound, which clearly enact *sound as "ambiance"/soundtrack*. Indeed, several researchers have demonstrated sound's effectiveness in conveying

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[45] Brown et al. (2017, 7) moreover note that authors do not agree on *soundscape* as a human perceptual construct of a given acoustic environment.

information and meaning (Jekosch, 2005), in triggering emotion (Juslin and Sloboda 2012[2010]), in evoking memories (Bijsterveld and Dijck 2009; Benschop 2009; Ward 2014), aesthetic responses, and in constructing identities and communities (Born 2012).

The V&A pioneered experimentation underpinned by the concept of *sound as "ambiance"/soundtrack*. Since the mid-2010s, virtually all its temporary exhibitions, independently of their thematic focus, are accompanied by soundtracks conveying specific moods. In this regard, mention must be made of *Frida Kahlo: Making Herself Up* (2018), *The Future Starts Here* (2018) (see figures 39 and 40), and *Christian Dior, Designer of Dreams* (2019) (see figures 41 and 42) with sound design by Ben and Max Ringham, Sam Conran, Emmett Glynn, and Reni Isaac. The Science Museum in London also provided the exhibition *Robots* (2017) with a soundtrack by Coda to Coda. Sound designers used algorithmic and generative processes to produce a soundtrack conceptually, reinforcing and evoking the theme of robots. Ragnarock museum in Denmark is also worth mentioning. At the entrance, an impressive and playful installation deliberately stimulates the visitor's interaction by submerging them in a sound ambiance specifically designed for the space and light showers, highlighting the role of light shows in the production of live music (see figures 43, 44, and 45). Ultimately, this welcoming space conveys the understanding that in concerts sight and sound can easily became one and the same thing.

Sound as "ambiance"/soundtrack is thus a flourishing practice within the museum field. This informs not only sound art practices developed by sound artists, to which *ambiance*'s current notion is arguably more connected as I will explain in the following section, but also practices such as building a soundtrack for a thematic exhibition. I think that the fact that these soundtrack practitioners call themselves sound designers instead of sound artists, although relying on the construct of ambiance and its prophesy to build on the materiality of sound, is linked to the idea that they are composing a soundtrack for an extant thematic exhibition, in a way parallel to building a soundtrack for a movie, and not a soundart work.
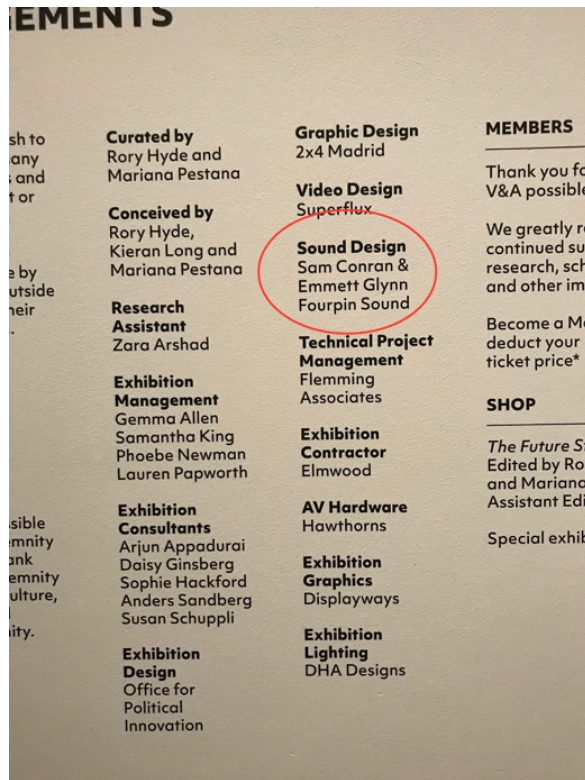
Figures 39 and 40 — *The Future Starts Here* at the V&A. On the left: entrance to the museum; on the right, final panel crediting the exhibition's sound designers. Photos by Alcina Cortez, September 12, 2018.
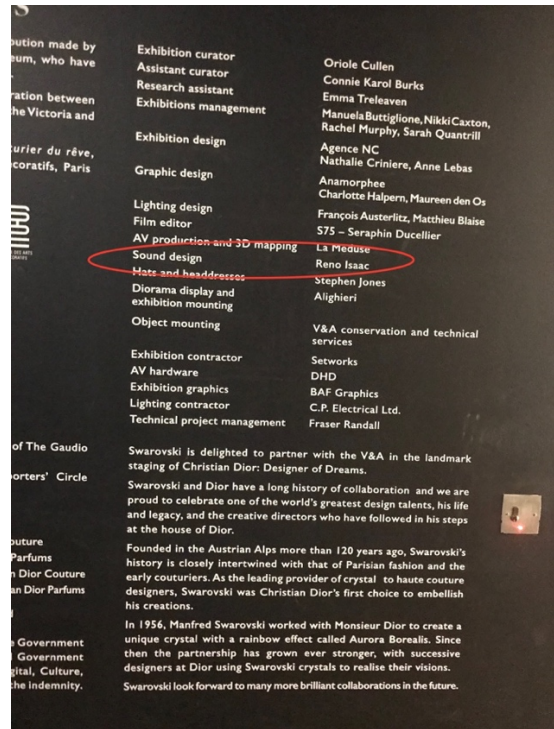
Figures 41 and 42 — Exhibition *Christian Dior: Designer of Dreams* at the V&A. On the left, a detail of the exhibition; on the right, final panel crediting the sound designer to the exhibition. Photos by Alcina Cortez, May 3, 2019.
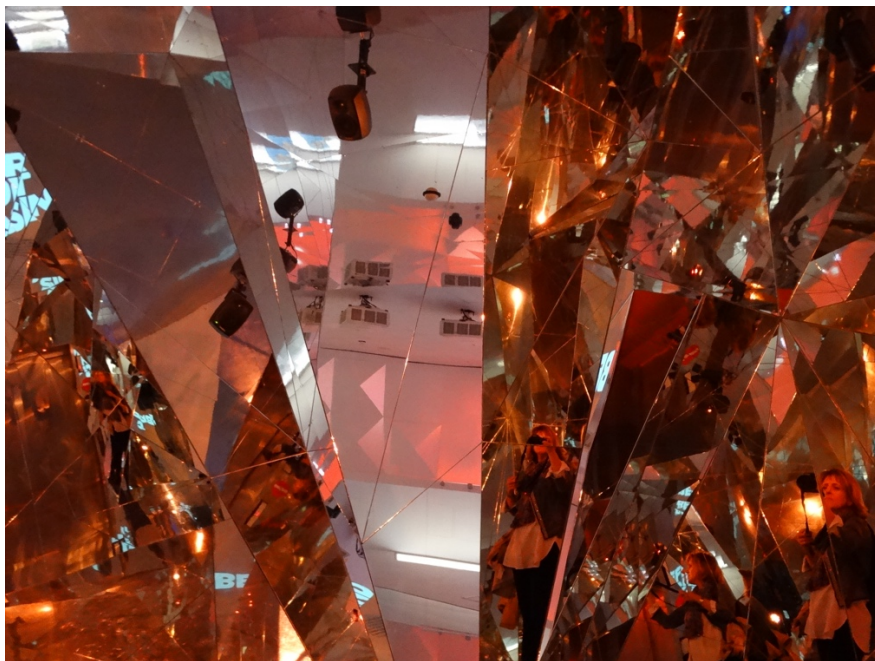
Figure 43 — Ragnarock Museum, Denmark. Opening room, a detail. Photo by Alcina Cortez, June 9, 2017.

Figures 44 and 45 — Ragnarock Museum, Denmark. Opening room, detail of the devices for museum goers to control light and sound. Photos by Alcina Cortez, June 9, 2017.

Sound as "ambiance"/soundtrack in digital settings

Sound as "ambiance"/soundtrack can moreover be grasped in online museums' opening pages or exhibitions displaying a specific soundtrack conveying a mood or an ambiance. An example is the Voma: The World's First Entirely Online Art Museum (https://voma.space) which credits itself to speak to the diverse and yet universal nature of the human experience. The museum experience is thus fully accompanied with an ambiance of the sound of water, as if the museumgoers are immersed in the actual sounds of the place, if it exists (see figure 46):
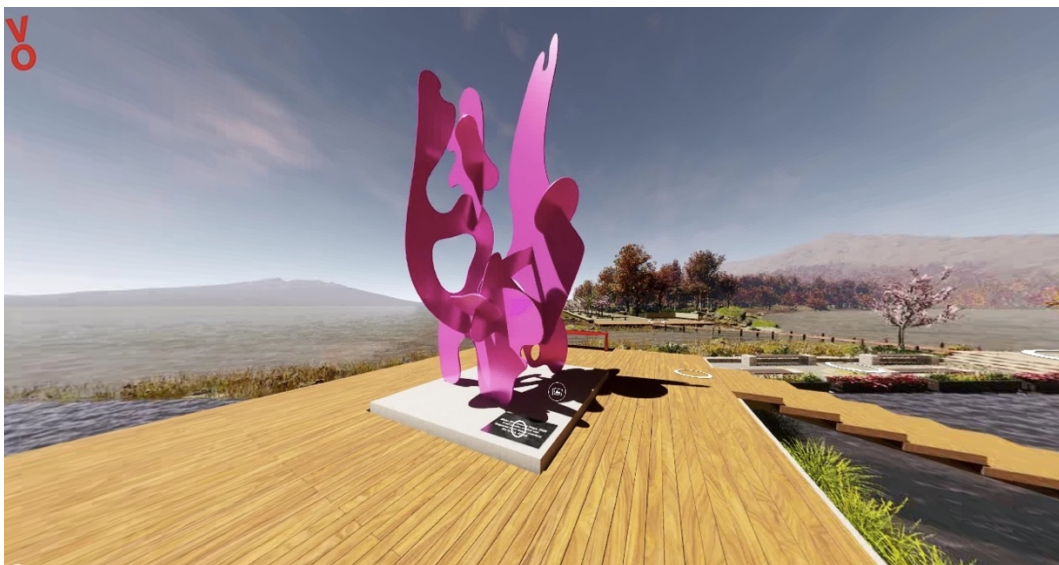
Figure 46 — Voma Museum, a view of the virtual exhibition. Accessed on January 28, 2021.

2.4. SOUND AS ART

As the title implies, the concept *sound as art* acknowledges sound, musical or non-musical, to constitute material with which to build art works. Sound's proficiencies for art are here understood to stay well beyond conventional ideas of musicality to embrace sound's singularities such as its resonance and relational capabilities.[46] As these conceptualizations developed, they similarly opened upward and innovative trajectories for expression and communication. Soundart practices—site specific installations, sound art installations, online streaming sites with recorded sound artworks, ephemeral performances, and many more—thus experiment with sound as aforementioned with a view toward the encounter between artwork and audience to take place somewhere closer to the audience. Grounded on sound's relationality, soundart's approach to themes is always dialogical and the audiences' participation is deemed to be truly significant and generative. By expanding on sound's resonance, soundart aims at tackling social and political issues, performativity and sound's acoustic properties, and critical awareness through the senses and the body. Museums in their more recent quest to appeal to museum goers' sensorium play a significant role here. As soundart is deemed non-representational and rather materially driven, it seeks to stimulate sensorial responses. By enveloping the audience, it aims at securing participation and building "togetherness." This quest has become part of their shift from an ecosystem in which the public is considered secondary to another in which museum goers are central. Furthermore, this shift has led to an increased welcoming of sound art events and exhibitions by museums. Defining *soundart* practices has been, nonetheless, highly controversial (Cox, 2015). Recent definitions posit that soundart extends beyond the aesthetic realm and embraces "social, ethical, economic, religious, and environmental issues" (Groth & Schulze, 2020, 14), among many others. Kannenberg considers soundart to play a significant critical role in terms of "[…] the cultural, political, scientific, and/or conceptual situations surrounding the act of listening" (Groth and Schulze, 2020, 15). Other definitions are of such an all-embracing nature that they have been considered as non-definitions (Groth and Schulze, 2020, 14). I think that working definitions can enable scholars to better conceptualize the phenomena they study. My tentative definition of soundart is a set of practices which rely on sound's

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[46] The term relational capabilities refers here to the ability of sound to connect people by means of its vibrations.

singularities such as its materiality, resonance, and relationality to involve its audiences intimately and communally experiencing the ideas and concepts proposed by an artist.

Soundart also lacks specific theoretical-analytical models (C. Cox 2011). Several approaches emerge from the literature. One approach is to view soundart taking into account the historical, philosophical, or stylistic contexts of specific works (Cluett 2014; Licht 2007). Another approach involves analysing the artistic and curatorial focal points of exhibitions (Feld and Ryan 2010), sometimes with a view towards establishing a cohesive and critical lexicon. Groth and Schulze (2020) refer to how soundart emerged in opposition to the romanticism that elevated music to a metaphysical condition. Seeking to subvert traditional definitions of music, it attributes aesthetic properties to noise and unpleasant sounds. Thus, sound artists are truly interested only in the medium of sound as a means of addressing questions about sound proper. This approach incorporates a wide diversity of sounds including "[…] sound that is already given, that is, noise, electronic sine tones, sound waves, and natural phenomena, sound generated by musical instruments, from field recordings, or by human voices" (Groth and Schulze 2020, 4). Kelly (2017) draws attention to the significance of all sounds, including incidental ones such as ambient sounds and noise produced by museumgoers. Another interesting point is that these works, often called installations, are appreciated from within the gallery with a greater proximity than is possible at music concerts while frequently deploying multimodal materials to explore a set of new formats that often incorporate museum goer participation. That the installations go on display in galleries where museum goers can move freely brings into consideration the dimension of space in both production and interpretation (Cox 2011). Typically, practices falling into the category of soundart operate from within an oral/aural epistemology.

Considering museum practices, one must mention the large-scale exhibition *Volume: Bed of Sound* presented by the Museum of Modern Art in New York in 2000, and, more importantly, *Sonic Boom: The Art of Sound* curated by David Toop and exhibited in the Hayward Gallery in London the same year. The latter is a milestone in the development and display of sound art works for it encompassed a series of sound installations focusing on a wide range of issues as regards to sound and stimulated discussions around sound exhibiting techniques and how to avoid cacophony. Regarding the exhibitions visited within the scope of my research, *Soundtracks,* held at the SFMoMA from July 2017 to January 2018 is a good example for illustrating the diversity

of common soundart practices (see figure 47). It presented a set of 21 works by 20 artists dating from 2001 to the present. The exhibition represented a multi-layered approach to sound, presenting sound as sculpture, as immersive installation, as recorded performance and as a participatory act of listening. Moving beyond medium-specific histories of sound art and electronic music, this cross-generational presentation emphasizes past SFMoMA commissions by Brian Eno and Bill Fontana, as well as new and diverse work by contemporary artists, including Ragnar Kjartansson, Christina Kubisch, Rafael Lozano-Hemmer, O Grivo and Susan Philipsz. Such a range of exhibits enables museum goers not only to consistently interact with sound but also, on a considerable number of occasions, to respond performatively. In short, this was an exhibition that offered museumgoers an experience of the possibilities of sound as defined by Cox (2017); "flux, event, and effect" (p.99).

Figure 47 — Exhibition *Soundtracks* at SFMoMA, San Francisco. Main entrance to the exhibition. Photo by Alcina Cortez, December 17, 2017.

Two examples can illustrate the wide range of the aforementioned soundart practices. In *Could* by Christina Kubish, an artist using electromagnetic induction in her installations since at least 1978, sought to stage the effects of wireless electromagnetic transmissions. The installation hosts a fourteen-channel composition programmed at

different segments of the sculpture (see figures 48 and 49) that visitors listen to (by means of customized headphones) as they move around the installation. In terms of contents, the installation comprises a sequence of recordings of magnetic fields collected from various sites near the museum (previously used in a work by Nam June Paik). In this way, museumgoers are given the opportunity to make their own and ever new live musical compositions. Indeed, and in line with some of soundart's assumptions, space and movement are two fundamental compositional parameters in that even a slight turn of head results in different sequences of tones.
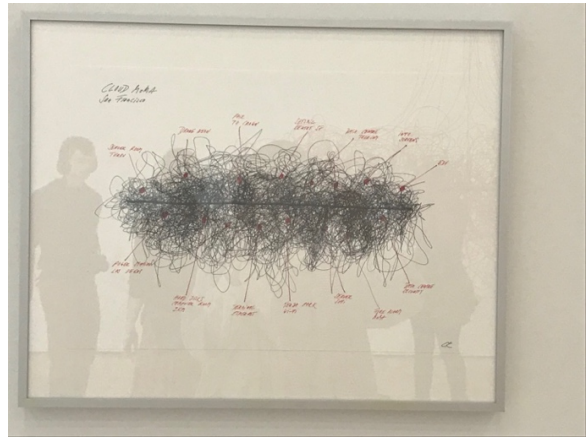
Figures 48 and 49 — *Soundtracks* at SFMoMA, San Francisco. *Could* by Christina Kubish. On the left, museumgoers' interaction with the installation-work; on the right, a scheme explaining the distribution of sounds. Photo by Alcina Cortez, December 17, 2017.

The other example is the installation-work *Clinamen v.3* by Céleste Boursier-Mougenot (see figures 50 and 51). The artist created a water installation in which floating porcelain bowls clink together as they circulate gently through their action. As they clink, they produce a percussive soundscape of unexpected musicality. In this way, Boursier-Mougenot provides, and this is unlikely in the conventional concert, an ongoing composition, that is, with no beginning or end. *Clinamen v.3* thus embodies the soundart's strategy of indeterminacy and the use of unorthodox sound producing objects.

Figure 50 — *Soundtracks* at SFMoMA, San Francisco. *Clinamen v.3* by Céleste Boursier-Mougenot. Photo by Alcina Cortez, December 17, 2017.
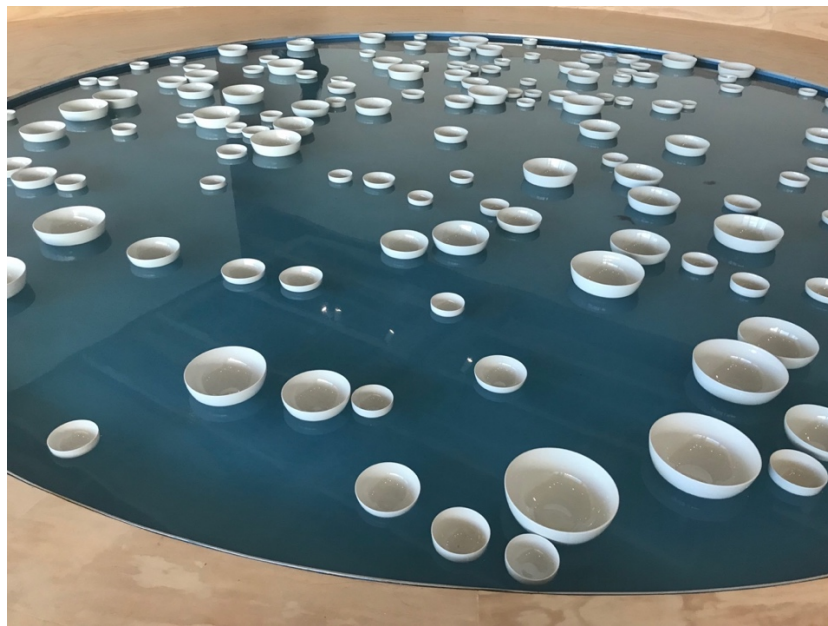
Figure 51 — *Soundtracks* at SFMoMA, San Francisco. *Clinamen v.3* by Céleste Boursier-Mougenot, a detail. Photo by Alcina Cortez, December 17, 2017.

Sound as art in digital settings

Some museums are devoted to the online exhibition of sound works of art thereby mostly building on the notion of *sound as art*. A clear example is the installation *Globale: Virtual Sound Gallery* produced by the Center for Art and Media Karlsruhe (https://zkm.de/en/event/2015/09/globale-virtual-sound-gallery) in which museumgoers can encounter music works of art at various points throughout the course of the exhibition

with the aim of connecting music with a spatial metaphor in a similar way as in museum buildings (see figure 52).
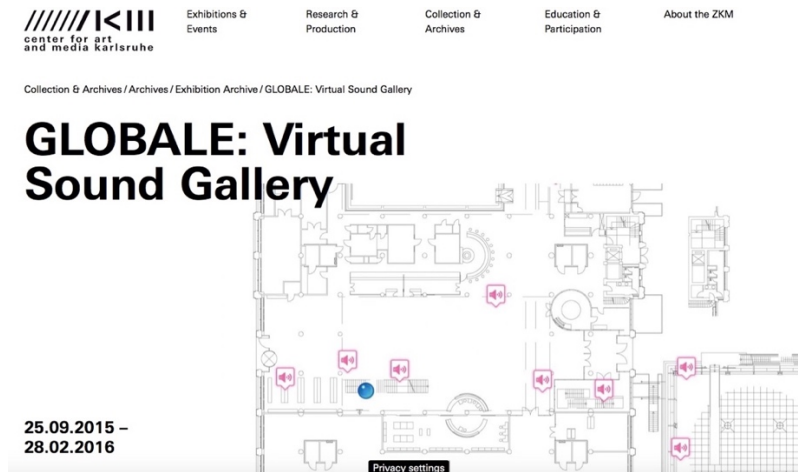
Figure 52 — Globale: Virtual Sound Gallery. Opening page. Accessed on January 27, 2021.

2.5. SOUND AS A MODE FOR CROWD-CURATION

The growing significance attributed to dealing with contemporary web grammar as a sign that museums are transforming museum practices and democratising knowledge has boosted the interest of museums in providing audiences with Internet-based settings. Although practices vary considerably, two of the most common outcomes can be signposted: designing an online museum façade devoted to the display and eventually the collection of objects—underpinned by a notion of the museum as a "content-provider" (Lacedelli 2018)—and designing virtual exhibitions involving museumgoers in the production of contents—underpinned by the notion of the museum as a place for "cultural production" (Lacedelli 2018; Ridge 2016[2014]). Digital museum practices stemming from the notion of the "museum as a content provider" have been discussed throughout this chapter pointing out that they commonly tend to parallel their physical counterparts. Exhibitions relying both on sound materials and on the web as the medium with which to curate them collaboratively have been attracting an increasing interest. They typically draw on the concept of *sound as mode for crowd-curation* in which sound is understood and deemed significant from the point of view of its co-curation potentials. Below, I will elaborate on practices framed by this concept.

Digital technologies have opened a significant upwards trajectory for shared cultural production, attaining a perfect fit with one of the key quests of contemporary

museum studies: achieving meaningful and collaborative engagement with museumgoers. Digital technologies have come to enable museums to encourage—sometimes in articulation with social spaces such as Facebook, Twitter, Instagram, Flickr and so forth— the audiences to perform collaborative curating gestures (Lacedelli 2018) in which the process is more important than the result. Annet Dekker (2015) has insightfully termed this process "curation in progress." Museums and/or exhibitions advocating sound-based practices to become not only places of exhibition but, most notably, places of crowd-curation of digital narratives in the form of playlists, soundmaps and Twitter exhibitions are represented by the concept of *sound as a mode for crowd-curation*, given how they depend on the web to perform such curatorial gestures and explore sound accordingly.

An interesting example is the project *Soundcities* (https://www.soundcities.com/index.php) which allows collaborative curation (see figure 53). It is the first online open-source database comprising thousands of sounds from around the world. The project allows the audience the possibility to remix thousands of sample recordings. It is moreover open for anyone to upload sounds from world cities, thereby constituting a valuable collaborative project. The aim is to create an online aural experience evoking place through memories, loss, love and hope together with opportunities for musical composition.

Figure 53 — The project Sound Cities. Opening page. Accessed on January 27, 2021.

2.6. CONCLUDING OBSERVATIONS

To close, this chapter attempted to analyze how museums have been dealing with sound, both conceptually and in practice, from the beginning of the public museum up to

the present. It results from my analysis of sixty-nine exhibitions and extant academic literature on the subject. It demonstrates that whether reduced to the condition of silence, vibrantly considered and incorporated, or as a tool for collaborative curation, sound has been a growing presence within museum exhibitions. My research and readings suggest that sound-based practices tend to cluster into five categories: *sound as a "lecturing" mode* (*silence as a "lecturing voice"* and *sound as a "lecturing voice"*), *sound as an artefact* (*popular music as an artefact, sound tropes as demonstration*), *sound as "ambiance"/soundtrack, sound as art*, and *sound as a mode for crowd-curation*. Two sensorial epistemologies, which have been presented in the first chapter, underpin these applications. The first is visual, acknowledging how meanings are attached to either visual signs or physical objects deemed to encode our ideas, thoughts, and conceptions and thus making a clear distinction between phenomena and their representation, with representation being an object exterior to the perceiver. Practices falling into the category of *sound as a "lecturing" mode* clearly rely on visual epistemologies; the second epistemology is oral/aural, acknowledging how all sounds conflate simultaneously in the perceiver's ears and thereby leading him/her to experience the world from the inside, through his or her body. Because sound flows simultaneously from all sides, oral/aural rationales bring all such things together and produce no separation between reality and its representation. Practices falling into the categories of *sound as "ambiance"/soundtrack*, and *sound as art* clearly rely on aural/oral epistemologies. *Sound as an artefact* falls virtually within one epistemology or the other depending on the specific context within which it is exhibited. Lastly, *sound as a mode for crowd-curation*, that is sound as collaborative and processual curation, is not about representation but rather about joint creation in real time. In resulting fluid and transient, the category clearly falls into aural/oral epistemologies.

Overall, with this chapter I sought to critically reflect on sound-based museum practices by paying attention to their underlying concepts, uses and practices. In mapping the sound-based museum terrain, I attempted to demonstrate that "sound in museums" is on the agenda of museum practice today and the need for extensive research. I thus hope that the work I presented here can contribute to the development of a new field of inquiry and interest for academics and museum curators.

CHAPTER THREE — *THE VISITORS* BY RAGNAR KJARTANSSON: A CASE STUDY ON SOUNDART IN A MUSEUM SETTING

This chapter interrogates the communicative potentials—representational and experiential (emotional and sensorial)—of sound when exhibited in museums in articulation with other expressive modes. I focus on the analysis of a case study, namely the sound art installation-work *The Visitors* by Ragnar Kjartansson. I argue that the installation-work conveys plural meanings about music, and *musicking*.[47] I also explore how it functions as a site for museumgoers to both articulate their own identities and to experience a sense of togetherness. My analysis draws on several social semiotics' methods, and on both the ethnomusicological perspectives on musical practices and on sound's experiential opportunities set out in chapter one. I also argue that the installation-work staged in a museum can be a site for exploring discourses about *music* and *musicking*.

I situate the installation-work within the category *sound as art* proposed in chapter two. It powerfully pairs the contemporary museum practice's aims and assumptions described in chapter one driven by "the new orthodoxy of visitor sovereignty" posited by Sharon Macdonald (2011, 8) and its many cognate ideas (accessibility, diversity, community, interactivity, visitor involvement). I visited the exhibition twice. The first time was when I came across of it in 2016 at The Broad Museum in Los Angeles (the installation-work went on display there from the museum's opening in September 2015 through to May 2, 2016). I later saw it at The Barbican Centre, London in a retrospective exhibition on Ragnar Kjartansson (July 14—September 4, 2016) and at SFMoMA (the San Francisco Museum of Modern Art) in San Francisco, USA, (July 15, 2017—January 1, 2018).

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[47] A term coined by Christopher Small in his book *Musicking, The Meanings of Performing and Listening* (1998), *musicking* refers to "music" as a gestural action in which humans articulate relationships of central significance to the maintenance of their species. These relationships, therefore, encapsulate the meanings of the musical acts. The aforementioned relationships are three-fold: between the sounds, between the participants, and between the participants and the physical setting. The particular significance of musicking thus lies in its ability to simultaneously articulate the complexity of those relationships—in opposition to logocentric regimes which tackle one singular perspective at a time. Ultimately, *musicking* is an epistemology in which music is the epistemic medium.

3.1 SOURCES

My analysis of *The Visitors* is based on the following sources of data:

(a) Observation

The Visitors (2012) is a 3D installation-work by the Icelandic artist Ragnar Kjartansson that has gone on display worldwide in various museums and galleries. The analysis deployed in this chapter draws on my visit and observation of the installation-work when it was exhibited at SFMoMA, on an unofficial videoclip accessed through YouTube, captured by a museumgoer at San Francisco's MoMA covering 55 minutes and 27 seconds of the 64-minute duration,[48] and on a record with the music downloaded online by deploying a keycode bought at the museum store. Ragnar Kjartansson has increasingly gained recognition as a leading contemporary artist with a diversified range of influences, "[…] stage traditions, film, Icelandic music and literature, opera, and contemporary popular culture" (Hasham 2016, 9). A distinctly new media art installation-work, it was named after Abba's last album *The Visitors* (1981), as divorce and internal strife ended the musicians' professional and personal relationships. A parallel can be made in that Ragnar had recently broken up with his wife and fallen in love again, as he stated:

> *And then, and then I was thinking a lot about a title for the piece, and [...] this was called Feminine Ways, because the music, the song was called Feminine Ways—once again I fall into my feminine ways—because lot of..., in this piece I'm really kind of, meditating a lot like the feminine, like the spiritual or... like the 21st century, feminine century, and then it was too blatant..., and I was concentring a lot on what should it be called and then I suddenly remembered, like the last album of Abba, called The Visitors, and I'm a big fan of Abba, and because Abba is this really "bubblegum pop" group that has like this super serious dark background like, you know relationships, and struggling with the lives and making pop music of it, and their last album, The Visitors, they even, on the cover they were like in a big mansion, like statures. And I just thought that it is a very appropriate title and also like a note to Abba, because they really, they really inspired me a lot and also like this, this The Visitors album is also about divorce..., and this piece was kind of related to that feeling, ah, like something really kind of, a period in one's life ending, yeap* (Kjartansson 2013b, 8:59).

Kjartansson invited a group of musician friends to spend a week in a nineteenth-century mansion of rare beauty, charm, and romanticism, in Rokeby farm in upstate New York. During their stay, they recorded *The Visitors* for over an hour in one single take, with nine cameras covering each musician's simultaneous performance in different rooms of the mansion, all connected by headphones. With musical arrangement by Kjartansson and Davió Pór Jónsson and lyrics based on a poem entitled *Feminine Ways* written in

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[48] https://www.youtube.com/watch?v=GOnsTTrnZXQ

2010 by Ásdís Sif Gunnarsdóttir (Kjartansson's ex-wife), the recording consists of the voices of all the musicians, two grand pianos, a banjo, guitars, a hurdy-gurdy, an accordion, a cello, a bass guitar and a drum kit. The result is an installation-work which is exhibited in a separate hall of the museum or gallery where darkness is maintained by means of curtains. This deliberately excludes other forms of stimulation, so the installation becomes the focus of intense attention. Inside this room, nine High Definition (HD) channels, each exhibiting the video projection captured during the aforementioned performance are displayed along both the existing walls and an additional wall placed in the middle of the room specifically for the installation-work. Each channel comprises of a large and equal in size screen and a high-quality loudspeaker place above each screen. From the sonic point of view, although each musician's playing can be heard in greater detail by moving towards the specific screen/loudspeaker, the conjoint musical performance is audible anywhere in the gallery, as all nine channels are playing simultaneously.

The installation's main structure is represented in Figure 54. Each channel/screen is numbered according to its order of appearance in the San Francisco Museum of Modern Art (SFMoMA) exhibition. The numbering is attributed assuming that museumgoers take the righthand path. Mention should be made, nonetheless, that according to my observation while I was interviewing museumgoers at SFMoMA, in no way was this path mandatory. Museumgoers felt free to follow their own path with the majority of them choosing the screens according to the music played or the sonic aspects that captured their attention at a given time.
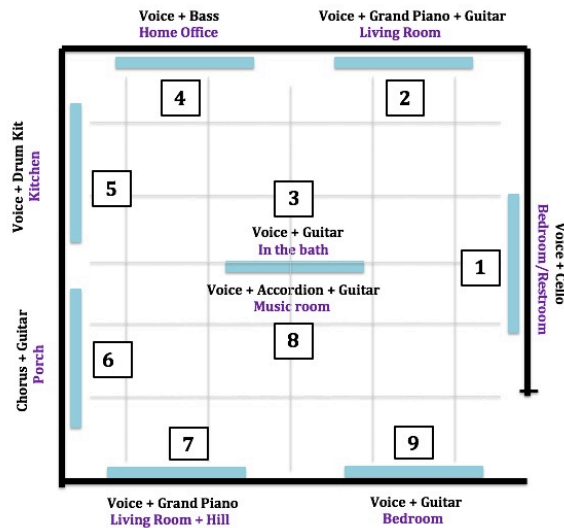
Figure 54 — Channel/screen numbering

Each channel/screen comprises a screen and loudspeaker combination with the number attributed to each specific channel also designating its screen and/or loudspeaker.[49]

In terms of the main visual content, each channel displays the following:

Channel/screen 1 — Woman singing and playing cello in a bedroom/restroom;

Channel/screen 2 — Man singing and playing a grand piano and electric bass guitar in a living room;

Channel/screen 3 — A man singing and playing an electric guitar in a bathtub;

Channel/screen 4 — A man singing and playing an electric guitar in the home office;

Channel/screen 5 — A man singing and playing a drum kit in the kitchen;

Channel/screen 6 — A group of people (including the home's usual residents) singing and playing guitars in the porch;

Channel/screen 7 — Men singing and playing a grand piano in the living room + the nine musicians singing;

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[49] When deploying the visual and sonic analysis, I specifically apply the terms *screens* and *loudspeakers* instead of *channels*.

Channel/screen 8 — Woman singing and playing the accordion and the guitar in a music room;

Channel/screen 9 — Men singing and playing the electric guitar and a woman lying on the bed in a bedroom.

The installation-work is multimodal in that it utilizes several modalities at the same time such as the visual (with each screen displaying one of the nine musicians playing their instruments), the sonic (loudspeakers playing each of the music lines played by each musician), and the spatial (allowing the installation-work to become 3D and the museumgoer to both hear the individual lines and all the parts). The images below depict a general view of the gallery and of each screen:

Figure 55 — *The Visitors* at SFMoMA. General view. © SFMoMA

Figure 56—General view of each of nine screens. Photo obtained through the Internet search in 2018, but inaccessible in 2021

The overall sequence within the gallery unfolds as follows: the nine screens are progressively switched on in the darkened gallery to each reveal one different room in the mansion on the Rokeby farm, its furniture and decoration, and a musical instrument lying on the floor (in some cases connected to an amplifier and a speaker), headsets and recording equipment such as microphones. After this brief prologue, a musician arrives in each room and begins tuning his/her instrument—except for Ragnar Kjartansson, who appears immersed in a bathtub surrounded by foam when the image is switched on. The musical moment begins with Kjartansson strumming on a guitar. After this, one musician at a time starts playing and singing as the texture becomes denser. The work then proceeds for 64 minutes as a continuous performance running across nine screens and is only interrupted twice by the "boom" produced by the sound of a canon heard in the garden. On both occasions, this sound cuts in at a climax in the music with the musicians then restoring the performance at a much slower pace. Towards the end, one at a time, the musicians leave their positions to congregate in the living room around the grand piano. Once reunited they all sing, open a bottle of champagne and continue singing. They then

move outside to the lush hills and walk away into the distance, still singing the same song while descending into a misty river landscape.

(b) An interview with and a talk by the artist and creator Ragnar Kjartansson[50]

The interview with and talk by Ragnar Kjartansson on which I drew for my research are available on YouTube. The interview was conducted in the foundation Pirelli Hangar Bicocca in Milan which is an institution devoted to producing and promoting contemporary art.[51] The talk was part of the MOCA, Museum of Contemporary Art, North Miami's Art Talk Series, and took place in 2012. Both sources reflect Ragnar Kjartansson thinking about his work, life experiences, and works of art in general. The interview focused on the installation-work *The Visitors*.

(c) Interviews with museumgoers.

Communication is complex, contingent, and provisional (Hooper-Greenhill 2011, 371) thereby its analysis requires both depth and scope, in other words, to be informed from different and complementary angles and perspectives. With this in mind, I interviewed museumgoers who visited the installation-work *The Visitors* as the role of museumgoers in attributing and negotiating meaning is central. Interviewing museumgoers falls into the field of Visitor Studies, a research area that emerged in the 1920s and received increased attention in the 1990s (McMurtrie 2016, 2). In tandem with a shift to a postmodernist outlook on the important role of museum goers, Visitor Studies shifted "[…] from thinking about visitors as an undifferentiated mass public to beginning to accept visitors as active interpreters and performers of meaning-making practices within complex cultural sites" (Hooper-Greenhill 2011, 362). This has meant the understanding of how learning in museums shifted from direct transmission to a long process. Learning is now understood as complex, variable, fluid and contingent and therefore correspondingly harder to determine (Hooper-Greenhill 2011, 373).

My decision to interview museumgoers stems from the desire to gain a deeper understanding of how museumgoers comprehend *The Visitors* and to have their voices in my analysis. This being the case, I conducted ninety face-to-face semi-structured

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[50] Interview: (https://www.youtube.com/watch?v=lcwGnWuXJuU)
Talk: (https://www.youtube.com/watch?v=s2nXUq99IW0&t=911s
[51] The data is not mentioned, but I believe it was probably conducted somewhere between September 2013 and January 2014, while the exhibition was on display at the foundation Pirelli Hanger Bicocca in Milan.

interviews with museumgoers to the installation-work *The Visitors* at the SFMoMA during the second half of December 2017, shortly before the exhibition closed on January 1, 2018.

I first sought to conduct in-depth interviews in order to obtain relevant qualitative data but had to opt for another approach in keeping with the limitation imposed by the museum's administration to neither retain the interviewees for a long period, nor to use a separate room for the interview. I was only allowed to interview museumgoers in the large and noisy atrium in front of the elevators on the ground floor (The *Soundtracks* exhibition in which *The Visitors* was integrated was on the 7th floor, so museumgoers had to exit the building via the elevators) where I found it more appropriate to conduct small semi-structured interviews. Before starting the interview, I asked for the consent of the museumgoer and confirmed that they had visited the installation-work by showing them a picture of it. I attempt to interview museumgoers of both genders and all age groups, from adolescents to elders. The questions aimed eliciting data on how museumgoers interpreted the installation-work in representational and experiential (interactional) terms and how they engaged with the visual, textual and sonic modes. Questions tackled the following topics:

1. Gender and age;
2. Length of time spent at the exhibition;
3. Trajectory in the gallery;
4. Reaction to and impact of the installation, especially the music;
5. Meanings and feelings transmitted by the music;
6. Overall Impact of the experience.

Ninety interviews were conducted (45 men and 42 women— data on gender data was accidently omitted in three interviews— with respondents ranging in age from 14 to 91). The interviews contents were transcribed by TranscribeMe services (www.transcribeme.com) that works on the basis of an automated workflow and a team of trained transcribers. The answers to the questions provided very interesting and insightful material, which I analyzed using the software NVivo specifically designed for qualitative research, intertwined with my analysis whenever relevant.

3.2. THE SIGNIFYING SYSTEM

In the theoretical framework, I distinguish between two systems for aiding in the representation of phenomena in museum exhibitions, a conceptual and a signifying system. I also mentioned that in analyzing *The Visitors*, my emphasis is on the signifying system, i.e., on the representational and experiential (emotional and sensorial) opportunities offered by the multimodal ensemble of the installation-work. Examining the signifying system is moreover a way of understanding the underlying conceptual framework.

My analysis focusses on the meanings of the installation-work by examining the interaction of image—text—sound—space by using social semiotics' approaches and ethnomusicological perspectives. Whenever appropriate, I deploy museumgoers' accounts in order to integrate the voices of the visitors to the installation-work into the analysis, corroborating the ideas grasped by social semiotics' frameworks or launching new analytical tracks.

Analysis started by a detailed examination of the signifying potential of each mode separately by deploying specific social semiotics' analytical tools. Each focused on the *representational*, *interactional* and *compositional* metafunctions/lens.[52] The visual layer was analysed by deploying concepts from the Grammar of Visual Design provided by Kress and Leeuwen (2006[1996]) and summarised in appendix A. This framework was complemented by the writings of Michael O'Toole (2011[1994]), Anthony Baldry and Paul J. Thibault (2010[2006]), and the study on semiotics and iconography by Theo van Leeuwen (2001). The textual dimension, which comprises the poem *My Feminine Ways*,

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[52] Communicative functions, articulated within the *context of situation*, refer to that which is specific in the physical text, i.e., in its situational context. It translates into studying the text through the lens of three metafunctions: (1) *ideational* or *representational*, that is, examining the semiotic resource's potential meanings, ultimately asking *what is the subject being addressed in the text?* (2) *Interactional* or *interpersonal*, that is, identifying the concrete participants, their relative power positions, and the respective participant interests, i.e., their specific aims in the context both of their interpersonal power relations and of their institutional power relations at the moment of sign-making, when construing the representation of a certain domain. Ultimately, this asks *who is participating in the interaction and which role or power is attributed to each participant in the context of her/his interpersonal and institutional relationships?* — this question applies both to the context in which stories are being told and to the context created by the stories themselves. And (3) *textual* or *compositional*, that is, how are the components arranged so as to achieve the aforementioned ends? From a general point of view, systemic functional linguistics as developed by Halliday understands texts to result from a tension between regularity (context of culture) and variety (context of situation), a tension that one must nonetheless regard as positive. Thus, in analytical terms, whereas context of culture deals with what is regular and widely shared, context of situation deals with that which varies.

was analysed using Discourse Analysis as developed by Louise Ravelli (1996; 2006; 2007) and summarized in the appendix B. The sonic dimension comprises the musical sounds played by the musicians in the videos. These were analysed by focusing on each of the six analytical sound tools provided by Theo van Leeuwen (1999; 2009), summarized in the appendix C. This framework was moreover complemented by the writings of Betty Noad and Len Unsworth (2007), Tore West (2009), Anthony Baldry and Paul J. Thibault (2010[2006]), and Rick Altman (1992). The musical analysis draws on the unofficial videoclip on YouTube and on the professional digital audio recording (although this does not include images, the sound quality is excellent). The YouTube videoclip source proved extremely valuable for analysis as, while the sound quality is not excellent, it covers the wide-ranging substance of the installation-work and allows for the possibility of reviewing images and sound. Finally, the spatial mode was analysed by deploying concepts from the spatial discourse analysis as developed by Louise Ravelli and Robert McMurtrie (2016) and from my observations of how museumgoers moved through space. As the installation-work is multimodal, my main approach in this chapter is to introduce the analytical results of the different modes in articulation with each other to support the main arguments. Before expanding on this work, I must offer brief explanations regarding how the modes' analytical process developed and the way I am organizing them in this thesis.

The starting point for *The Visitors*' is the poem *My Feminine Ways* which expresses the ambivalence of femininity, as I will discuss further on. The whole work develops on the grounds of repeating some sections of the poem and its correspondent musical component over and over again. As to the visual analysis, it focuses on the filmed images displayed by each of the nine screens separately. Despite the fact that these images are filmed, each screen also functions as a painting displayed on the wall in that the setting of each screen and the relative position of the musician inside this setting remains the same most of the time. This being the case, I captured the most relevant shots for each screen and oriented the analysis towards the images as frames by deploying the aforementioned tools. Despite selecting the most relevant shots, I gathered sets of four or more images for each screen which has been subject to detailed analysis. Indeed, the Grammar of Visual Design has the merit of yielding comprehensive results by using a very extensive set of tools. Although the deployment of these tools has been a fundamental step in the analytical process, not all the results are relevant for the main

argument. This being the case, and considering that in this chapter my focus is on the integrated meanings of the multimodal installation-work *The Visitors*, I opted to present the detailed visual analysis in a separate appendix D and to summarize the main points in this chapter articulated with the textual, sonic, and spatial analysis.

Finally, I would like to mention that the analysis I propose is an attempt to provide my own reading of the installation drawing on several social semiotics' frameworks, on several ethnomusicological concepts, and on museumgoers' accounts. My own reading is also informed by a eurocentric perspective on images, texts, sounds, and space in which I have been raised and trained. Furthermore, I opted to avoid social semiotics' jargon so as to make the text accessible to a broad range of readers. When I use specific terminology that might not be familiar to readers, I provide additional information in footnotes, between brackets or in the appendixes. My analysis attempts to show how *The Visitors* is complex in the sense that it conveys several intertwined ideas.[53] With a view to make my arguments as clear as possible, it is worth to unpack its meanings from the perspective of two main analytical levels: the first is immediate, revealing the focal participants and/or themes addressed[54] and the patterns of experience, i.e. actions and or processes,[55] in which these are involved; the second, involving further reasoning, brings to light additional meanings.

Music and "musicking"

My first analytical endeavor was to disclose the subject being addressed by the installation-work *The Visitors*. Music is the most prominent aspect of the *The Visitors*.

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[53] According to Kress and van Leeuwen (2006[1996], 107), as in the case of language, images may also be simple (one single clause) or complex (several clauses coordinated or subordinated). Each screen simultaneously displays several conceptual and narrative processes/clauses (see detailed description in appendix D). The ways in which the three modes intertwine also build into a multiplicity of ideas, which I will discuss throughout the chapter.

[54] The grammar of visual design uses the term participants to designate people, places and things (including abstract things). These participants include both the doer and the receiver of the action and are identified in visual formats of communication in two ways: (1) following the rationales of the psychology of perception by identifying the outstanding volumes and masses in the images; (2) following Halliday's systemic functional linguistics by identifying the participants who realise semantic functions, that is, who play the most crucial roles (such as *actor*, *goal*, *recipient*, *carrier*, and *attribute* (for a more detailed explanation see Appendix A).

[55] Processes refer to the social processes (actions) in which the participants are involved. The visual grammar of experience, in turn, distinguishes between two processes: (1) narrative, which implies the existence of a vector linking the participants and (2) conceptual or classificatory/analytical in which there is a depictive presentation and never a vectorial relationship between participants (for a more detailed explanation see Appendix A).

This is made clear sonically by the fact that a song is being performed, and visually by the fact that each of the nine videos is depicting different musicians all playing their own instruments and singing the same song. The themes *music* and/or *musicking* are depicted visually through the musicians, musical instruments, and technological devices. Among these three, the musicians are the focus of greatest significance.[56]

Technology is a participant clearly represented and its meanings are highly significant. To start with, the very fact that the high-tech screens appear in the place of paintings brings technology to the fore. In addition to this, one quickly grasps the fact that the musicians are not gathered in the same physical space, but through a technological connector, the headphones which each musician is wearing. The fact that there is no visual vector explicitly establishing a relationship among the musicians is not significant here in keeping with the fact that museumgoers can grasp the overriding action statement "headphones connects musicians," that is, technology keeps people together despite the space separating them. A few interviews corroborated this, as exemplified by the following response by a museumgoer:

> *But they were connected electronically, and so it seemed like as you went from screen to screen, everyone was quasi-independent but working together for a larger goal of producing this music, and I found that very interesting.*
> Museumgoer no. 40, male, 48 years old, December 26, 2017

Having signposted the participants who are represented visually, I now turn to the processes or actions in which they are engaged, *musicking*. All screens represent the ways in which musicians play their instruments[57]—by means of visual clauses such as "man makes music," "man plays the piano" and so forth. The installation-work strongly suggests that musicians are the producers of music and that music is a human activity. The images posit two other significant visual statements, "*music* and/or *musicking* prompt

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[56] Analysis of the installation-work's compositional (textual) meanings identifies the ways in which the ideational (representational) and interaction (interactional) components relate to each other. Its tools are *information value*, *salience* and *framing*. Information value, salience and framing demonstrate how the musicians are the most significant among the depicted features, hence, the most significant participants for *music* and *making music*.

[57] By means of actional processes (see appendix A).

imagination," and "*music* and *musicking* as a way of transcending the everyday"[58] [59] (grasped in all screens).

The themes *music* and *musicking*, moreover, carry other meanings.[60] To begin with, music is depicted simultaneously as highly demanding and seemingly relaxing. While musicians are playing their musical instruments with great focus and concentration, their bodies also flow freely to the rhythm of the music. The pleasures of pursuing excellence offered by music to its players have been mentioned, together with many other traits, by Hesmondhalgh (2013, 55) in his description of why music matters to human beings. The installation-work furthermore displays several traits of classical paintings, thereby ascribing *music* and *musicking* with the values usually attributed to the great works of art. At the same time, the screens' action takes place in a 19th century mansion, Rokeby farm, which in itself suggests classical paintings, here refurbished to a modern-day scene in which the characters are dressed in a trendy manner. The fact that Ragnar Kjartansson and the girl lying on the bed are naked also evoke classical painting. The nineteenth century mansion additionally evokes images of refinement, luxury, elegance and aesthetic pleasure (stimulated by the rooms' decoration and materials). Other themes are also evoked[61] such as bohemian life (through clothes and fabrics, the acts of drinking and smoking) and sensorial pleasure and sensuality (musicians are relaxed and are

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[58] For Koepnick (2021, 61) there "[…] is no doubt something ascetic about the design of *The Visitors*."

[59] The analysis showed that the great majority of the actions performed by the musicians are transitive, i.e., they have both an actor and a goal. These statements, on the contrary, are non-transitional action processes, that is, those realised by a vector connecting a participant to nowhere. Following the Grammar of Visual Design, these actions are weaker in comparison to those that are transactional in that they do not impact directly on anything explicitly represented on the screens (transactional actions contrariwise have an effect or directly impact on some other entity). In my analysis I have identified a great number of non-transactional actions mostly articulated by vectors fused with musical instruments. As these vectors point to a non-represented participant, they convey the notion that music is an expressive mode that involves the imagination of both musicians and listeners. These processes are furthermore fused with action processes performed by the hands of musicians playing music and so falling into a specific process type; *conversion* in which a chain of processes is represented as a cycle in which a goal in a given process becomes an actor for that which follows (Kress and Leeuwen 2006[1996], 68-70). Following Kress and van Leeuwen, this strategy somehow weakens the meaning represented. Some technological devices, such as microphone bulkhead mounts and loudspeakers, also appear as participants and demonstrate how technology is involved in the music process.

[60] In the Grammar of Visual Design, these are conveyed by conceptual and relational processes (see appendix A) in which the participants take part.

[61] By means of both conceptual, relational and analytical processes. Conceptual processes run parallel with the relational processes in the verbal grammar of experience. Relational processes are processes of being and deemed to characterize and identify (Halliday 2014[1985], 259). They model "[…] experience as 'being' rather than as 'doing' or 'sensing'' (p. 259). Conceptual processes prove truly decisive in representing the world for they do not represent a phenomenon of consciousness but are instead construed by interrelating elements in a relationship of being. According to Kress and Leeuwen (2006[1996], 79), conceptual processes posit "[…] participants in terms of their more generalised and more or less stable and timeless essence."

informally clothed and two of them are naked, their gestures point to the fact that they embark on the pleasures of music). The notion that music is a site for bohemian life, love and body pleasures has indeed permeated rock counterculture emerging in the twentieth century (Hesmondhalgh 2013, 64). The *music* and *musicking* subjects are moreover connoted with the beauty of natural phenomena (by means of the final setting depicted in screen 7 in which the whole group descends down the hill and through screen six filmed in the mansion's porch and showing its surrounding garden). Taking all of the aforementioned into consideration, I argue that in visual terms, the installation-work *The Visitors* provides a rich portrait of *music* and/or the activity of *musicking*.

Through the analysis, I attempted to grasp deeper domains of representation by analysing the patterns of experience in which the participants are engaged. I will attempt to demonstrate that *The Visitors* is very effective in articulating music's capacity to engender modes of privacy and publicness as constituents of the notions of *individuality* and *togetherness*.[62] In effect, in visual terms, music is clearly depicted as an activity that is simultaneously individual and collective in keeping with that each musician is separate in his/her own room but connected with the others through headphones and participating in the whole through microphones. Kjartansson's interview corroborates the intention to depict both practices:

> *So, the important aspect in the, in the, is the individual portrayal of each musician, of each friend of mine, and this idea that, you know, we were all individuals but when we came together, we create something together, and music is such a good metaphor of this, you know, that you have to be totally concentrated on yourself, but also concentrated on, you know, on the others. So, it becomes like a, yeah it becomes like the perfect society, when you are doing music it's the greatest society (Kjartansson 2013b, 5:05).*

I will now address in greater detail how the installation-work conveys *individuality* and *togetherness*.

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[62] The significance of music to communities and societies is implied through several narrative (action) processes as my analysis has attempted to demonstrate (see appendix D).

Individuality, intimacy, and involvement

I now expand on how the installation-work leads museumgoers to experience music privately taking into account their identities and subjectivities. That each musician is portrayed alone in his/her own room, clearly summons a sense of solitude and intimacy—even the couple depicted on screen nine suggests privacy. Other strategies should be mentioned in relation to these images which, in involving the museumgoers, were effective. I am referring to the "image acts" positing museumgoers to construct imaginary relationships with the musicians through the gaze strategy *demanding* which is particularly effective in securing individual involvement. In appendix A I explain "demand" within the framework of the grammar of visual design. Appendix D moreover details the *demanding* acts that I found by analysing *The Visitors*. Here, I will briefly mention *The Visitors*' *demand* acts and how it relates to my argument. *Demand* acts are realised through the vectors connecting the eyelines of musicians projected through some screens to those of museumgoers thereby instilling in them the sense that the musicians are looking at them. These exchanges of glances prompt museumgoers to establish an imaginary relationship with the depicted musicians and a strong sense of empathy and engagement with them and with the activities in which they are engaged. Ultimately, there are as many *demand* acts as museumgoers. The fact that the screens are very large and placed on every wall so as to envelop museumgoers in the ongoing performance moreover prompts them to imagine an intimate relationship with the musicians as if they are actually present in the gallery. These exchanges posit museumgoers to be part of the performance and prompt them to develop their own sense of identification.[63] Several interviews point out that museumgoers found a space for their subjectivities and introspection, as is reflected in the following responses:

> *It's so intimate and you just feel like, "I'm with these people in that room with them."*
>
>> Museumgoer no. 56, male, 23 years old, December 27, 2017

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[63] According to Kress (2006[1996], 68), *demand* can cause strong and effective empathy or identification with the participants represented, which in the specific case of *The Visitors* is furthermore enhanced by deploying images in life real size.

I would say it gave you kind of a moment to just kind of reflect on yourself because it almost felt like you could actually be there because of the photography.

> Museumgoer no. 3, female, 29 years old, December 18, 2017

It felt like you're there and involved in that interaction which is really interesting.

> Museumgoer no. 17, male, 63 years old, December 18, 2017

Yeah, I felt intimate.

> Museumgoer no. 38, female, 29 years old, December 26, 2017

But it's an open canvas in which to sort of project our own self into and that's perhaps more interactive aspect that you were thinking of. As a musician, the degree of collaboration over space and time is certainly the most striking element of it.

> Museumgoer no. 49, male, 20 years old, December 27, 2017

In a similar vein, my analysis also demonstrates that the installation-work allows *great involvement*.[64] This materializes in the musicians depiction as providing information for museumgoers to observe and to challenge them to establish direct contact.[65] Such arrangements typically elicit museumgoers to get involved in a world

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[64] These meanings were uncovered through the grammar of visual design's interactional metafunction (see appendix D), a tool specifically developed with a view toward grasping the kind of social interaction the object of analysis allows. Whereas the representational metafunction seeks to analyse the interaction and conceptual relations between the people, places and things depicted in the images, i.e., between the represented participants, the interactional metafunction seeks to analyse the relationship between the producer of the image and the museumgoers, i.e., between the represented and the interactive participants. According to Kress and Van Leeuwen (2006[1996], 114), *represented participants* are those depicted in images, be they people, places and/or things and *interactive participants* are "[…] the people who communicate with each other *through* images, the producers and viewers of images."
Among the grammar of visual design's toolkit, this is perhaps the most singular analytical tool in keeping with that it strives to understand what attitudes the installation-work allows museumgoers to adopt towards its represented content, in this case towards *music* and *making music*. The analysis was based on the tools *gaze*, *size of frame*, *perspective*, and *modality* (see appendix D).
[65] According to the grammar of visual design's *gaze*, the most common strategy is *offer*; occasionally, a *demand* strategy is adopted with the musicians looking (virtually) directly at museumgoers (see detailed description in appendix D).

shared with the producer's view and engineer them to freely accept or reject his/her point of view.[66]

Intimacy and involvement were moreover made possible through the materiality of music and of visuals (textures and colours). In fact, some musical parameters of expression are particularly significant for museumgoers to establish an intimate relationship with musicians. In general terms, each voice and instrument stands out from the whole through individual timbres and embellishments as there is an emphasis on heterophony. The melodies are often whispered, mainly by women, which creates a sense of intimacy. There is also the use of falsetto and shouting as expressive tools. Indeed, women's voices sound like that of a child, something immaculate, thereby establishing great intimacy.[67] The tool *modality* with its scales of *pitch range*, *durational variety*, *dynamics*, *perspectival depth*, *amount of fluctuation*, *amount of friction*, *amount of absorption*, and *directionality* also prove the potential of musical sounds to prompt intimacy and involvement. The *pitch range* is fairly large which connotes emotional responses. The *durational variety* aligns with the pitch range in proving significantly varied while the *dynamics* range from pianissimo to fortissimo, which heightens emotional expression. There is a great differentiation between the events showing figure, ground, and field with this becoming very flexible depending on the museumgoers' location inside the gallery with the work correspondingly revealing a high level of *perspectival depth*. The *fluctuation* is similarly high in keeping with the work containing plenty of vibrato to suggest a deep expression of emotion. In terms of the *amount of friction*, the installation-work shows a certain degree of noise or grit. As for the *amount of absorption*, there is a certain amount of reverb rendering the whole event sounding natural. In short, in keeping with the majority of the articulatory parameters rating high or even amplified, it is my understanding that *The Visitors* displays a high sensory modality (for more on the analytical terms used, see Appendix C). According to van Leeuwen (1999, 179), the fact that the majority of the articulatory parameters rate high or are even amplified stimulates the emotive impact.

On the whole, a harmonious, colorful sound stands out. The social semiotics of music 's analytical parameters such as *sound quality* and *timbre* (see appendix C) also

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[66] According to the grammar of visual design's, parameter *size of frame* is invariably a *medium long shot*. In terms of *perspective*, the majority of screens adopt a *frontal point of view* and *eye level* (see detailed description in appendix D).
[67] Signposted on the grounds of the Social Semiotics of Sound's parameter *social distance*.

corroborate my reading. Expressive tools such as *tension*, *roughness*, *breathiness*, *loudness*, *pitch register*, *vibrato*, and *nasality* were considered. Globally, the sound of the voices is very *relaxed*. There is a soft sighing *breathiness* with the sound enveloping museumgoers, possibly creating a sense of *intimacy* referred to in Van Leeuwen's (1999, 40) framework. Due to the three-dimensional installation-work's disposition, the dynamics ultimately depend on the positioning of museumgoers inside the gallery. In general, the sound of the installation-work is nonetheless loud but enveloping and therefore intimate. Several significant crescendos were also signposted which will be mentioned in the section about emotion. *Vibrato* is plentiful. The majority of the musical instruments are acoustic and played by musicians. Both voices and instruments are performed with vigorous emotion, having a highly dynamic and moving effect.

In his article *Toward an Ethnomusicology of Sound Experience*, Martin Clayton (2008, 143) emphasizes how in a sound environment the voice comes to the fore to a perceiver and how it communicates with him/her about the emotional state of a person—an understanding which Ihde (2007[1976]) and Barthes (1978) had already developed. In visual terms, the vivacity and energy of the nine screens' images[68] also demonstrate the potential of stimulating great sensorial and emotional engagement. In experiential terms, the installation-work becomes a source of pleasure and affective meanings. Taking into account the aforementioned parameters, its expected effects are an emotional impact on the listener.

There are several ethnomusicological accounts which depict music as a major instrument for the development of notions of the self throughout one's life. Tia DeNora (2000, 46-74; 47) has argued that music is an effective "technology of the self,"[69] that is, a means "to regulate and constitute the self" as it develops over time through processes of "aesthetic reflexivity"[70] with implications on memory, concentration, emotion, affect, and the sensorial. Hesmondhalgh (2013) also examines the relation of music with the self.

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[68] These meanings can be grasped by using the grammar of visual design's toolkit *modality*. Specifically, all the screens share the same modality print. The materiality of the resources proved to generate high modality in terms of its sensorial coding orientation—that is, a high degree of *colour saturation*, a high degree of *colour differentiation*, and a high degree of *colour modulation*, a well-articulated background (*contextualization*), a clear enunciation of pictorial details (*representation*), a great degree of warm light (*illumination*), and a high degree of *brightness*.

[69] Hesmondhalgh (2013, 37) mentioned the term "technologies of the self" to has been first used by Foucault. DeNora use of the term, nonetheless, differs from it.

[70] According to DeNora (2000, 48), the term "aesthetic reflexivity" was first coined by Lash and Urry in 1994 in the book *Economics of Signs and Space*.

The author argues that music is linked to the self and to its subjectivities, and is central to what he calls "human flourishing" (2013, 17-18)—a notion which he relates to the labor of pursuing, at one and the same time, a good and significant life as a result of imparting "tenacity, sacrifice, courage, and love," and of being able to profit from accessing aesthetic experiences. Hesmondhalgh (2013) moreover heralds music's singular capabilities in building personal authenticity, affirming emotional sensitivity and status competition. Turino (2008, 7) also argues for music's value for listeners to develop their own personal nature. By indexing previous situations in which listeners heard a piece of music for the first time, music stimulates the imagination to work and triggers feelings.

In light of the aforementioned considerations suggesting that the installation-work engenders a sense of privacy, I argue that it fulfils a major aim of the museums studies today, to contribute to building identities.

Togetherness

My analysis similarly shows *The Visitors*' propensity to engender feelings of togetherness as musicians are making music together and museumgoers somehow participate in the process. I do not understand togetherness to be in opposition to privacy, but rather to follow from it in the sense that togetherness is actually dependent on a large number of subjectivities. In this regard, Ragnar's statement is significant:

> *I really, I really liked that we were so much togetherness when we were doing it, but like [...], you know everybody is, very fragile and alone also, which is, which is how we are, that's the humans state, you know it's like, it's a, it's like my dad said one Christmas, like it's sad and beautiful to be a human being, and, and, and then the, the, it also makes the thing that we are all solo performers, and, and a, and it's like because you can go to each into screen just like concentrate on the solo performer and then you can concentrate on the whole thing* (Kjartansson 2013b, 6:02).

In *The Visitors*, the sense of commonality and togetherness is conveyed through the intertwinement of several features. Firstly, in visual terms, although musicians are depicted in their individual separateness, there is also a contrariwise movement enacted through the headphones which connects them. This serves as a metaphor in which the themes *music* and/or *musicking* provide the possibility of overcoming barriers and bringing people together. The audience is fundamental in portraying a sense of

togetherness or commonality. The installation-work is very effective in creating relationships between the audience and the musicians in keeping with how several musicians are depicted so as to stimulate museumgoers to establish a reactional process with them, as I have discussed above. This process attributes museumgoers with the sense that they are part of the whole set—and this despite the fact that they are not depicted in the images but actually fall outside them. Space and music (tempo and repetition), nonetheless, are the most decisive modes in setting up a sense of commonality and togetherness, as I discuss bellow.

Space and music as conveyers of "togetherness"

That the installation-work was conceived in space is not a casuality, but crucial on many levels. To start with, its location in a separate museum gallery by black curtains suggests the desire for this experience to be protected from the exterior. This design plan might lead some readers to interpret the installation-work as standing outside of reality, somewhat transcending the everyday. The very fact that *The Visitors* is displayed in a museum gallery as part of a sound art exhibition enables it to be identified as a sound artwork. As the museum in question is the highly renowned SFMoMA, this places the installation-work at a very high artistic level and prompts its appreciation primarily from the aesthetic point of view and less as a form of leisure or entertainment. In addition, the installation-work (and the *Soundtracks* exhibition itself) is exhibited on the seventh floor, currently the highest floor of the museum, which according to Ravelli and McMurtie (2016) conveys the idea that the work and/ or the artist is highly valued.

I also consider space an important parameter in that it allows music to be presented as "immersive"—in the sense posited by Schrimshaw (see chapter 1)— and, hence, to strongly impact on the ways in which museumgoers behave inside the gallery. Ultimately, both immersion and performative behavior eliciting a sense of "togetherness." These ideas merit further consideration, as follows.

The Visitors' musical layer is not a soundtrack accompanying the moving images, as is often the case in films, but rather an audiovisual recording of a live musical performance. This means that images and music are closely coupled. Music seems to bind museumgoers. Some musical features can be mentioned to sustain this hypothesis. Firstly, sound, which is music's raw material, is inherently relational in the sense that it is only

possible as a result of vibration and touch (Koepnick 2021, 37), and music sounds is a participatory practice.[71] Through musical sound, museumgoers are synergically engaged with one another. Space is fundamental here. Spatial distribution of the loudspeakers makes it possible sound to be exhibited as a sculpture and *The Visitors* to yield an enveloping effect engendering a "relational category of experience" (Koepnick 2021, 70). In providing *immersion*, the installation-work moreover elicits performative behavior and collective modes of reception. Van Leeuwen's framework (1999, 29) posits *immersion* as eliciting notions such as identification, participation and communion. As the majority of the composition is fed with voices and instruments playing simultaneously, similarly there is a sense of a thick musical piece taking place, a texture which Van Leeuwen (1999, 77) similarly posits as achieving a sense of belonging and cultural cooperation. Interviews attested that the installation-work offered interesting experiences of *immersion*:

> *It's just nice to kind of open yourself up and just kind of let it embrace you, as opposed to trying to understand what it meant, and just kind of let it take you.*
>   Museumgoer no. 3, female, 29 years old, December 18, 2017

> *It was great because it was so deep with all these [inaudible] feeling of the music. It was a really immersive experience.*
>   Museumgoer no. 23, male, 39 years old, December 18, 2017

> *Super immersive.*
>   Museumgoer no. 27, male, 34 years old, December 19, 2017

> *I love how it was both cohesive and individual and I loved being able to explore the different rooms and also be able to take in the entire presentation at the same time. I loved it. I loved not knowing what was coming next, and I loved it, I loved the whole thing. It was very immersive.*
>   Museumgoer no. 50, female, 40 years old, December 27, 2017

> *Happy. Very happy. I felt like it was a joyous gathering, and it definitely made me feel whole. And I felt like all of the sound around me just kind of resonated with me. And I'm still humming it, the song [laughter].*

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[71] For Koepnick (2021, 37), sound best conveys emotion over reason.

Stunned and totally engulfed.

In allowing music to be "immersive", space moreover introduces a large performative facet to the work. In fact, the individual behavior of museumgoers and the social geometries they adopt as a group conveyed meanings. Vectors developing between museumgoers and the nine screens allowed museumgoers to develop their own pathways and to perform their own narrative processes of walking. Together with music, space allowed museumgoers to dance. The space, in conjunction with the fact that the screens and the loudspeakers are distributed throughout the gallery, enabled people to associate with each other, achieving communal interactions. The lack of any strict pathways for museumgoers to perform or any limitations on entrance meant that the spatial arrangements enabled people to behave with a certain degree of freedom. That there are no barriers between the majority of the videos maximises contact and the creation of personal paths to be left to the intuition of each museumgoer. Only the wall in the middle of the gallery establishes a division and yields some spatial organization. As there is no furniture inside and people can easily access the screens, social distance between the institution and museumgoers is likewise minimised. Indeed, I have observed museumgoers tending to adopt informal behaviors, both individually and in groups. As they arrive, museumgoers often seemed confused and in need to constantly adjust and reposition themselves in relation to the whole set of nine screens. Depending on their concentration, some people stood still or sat down on the floor or even, in some cases, lay down (mainly museumgoers who seemed to be most appreciative of the installation-work); in some cases, they danced and sang, moved freely, established eye contact with one another and created a bold energetic ambience.[72] There were no visible museum staff inside the gallery, which also might have created the conditions for museumgoers to engage freely. Some narrative sequences across the screens (as is the case with the final congregation on screen 7's living room) greatly captivated museumgoers and prompted them to gaze at a specific screen or follow a path in a group. Lastly, people all being on the same level inside the gallery also suggests that the installation-work's space

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[72] These behaviors were moreover prompted by the absence of seats in the gallery.

contributes to decreasing social distance and mitigating relations of power not only between museumgoers and the institution through the installation-work, but also among museumgoers. Ultimately, the installation-work is itself multifunctional (museumgoers are enabled to sit and move and sing and look and hear), therefore, the space is hybrid enabling several free movements, self-identification, a sense of community and togetherness. In fact, museumgoers' performative experience of the musical sound itself has greatly been shaped by the fact that it is being exhibited spatially, as illustrated by the following excerpts from interviews:

I like how each screen is a different piece of the music and the experience changed as you wander around kind of like walking around through the house. I also like how the experience of the song is different depending on which screen you sit in front of because of the prominence of whatever voice for instance is very different, yeah.

Museumgoer no. 7, male, 29 years old, December 17, 2017

But I really liked how you can walk from person to person and listen to them specifically, but also you could still hear everyone else around at the same time.

And I can almost feel like I was one of the musicians or in the presence of them playing that ambient sort of music.

Museumgoer no. 10, male, 22 years old, December 18, 2017

It was very experiential and surreal but also, because you could see everyone on the screen and you could go to each-- you could experience it as a whole, but also experience each of the musicians individually.

Museumgoer no. 13, female, 23 years old, December 18, 2017

And I liked how at each point the music would build and it would sort of move around the room.

Museumgoer no. 14, male, 35 years old, December 18, 2017

And how they were all in the same household but different rooms. It was almost disorienting the way I would hear one sound and turn to look at it.

It was strange. When I look around and see all the people walking through the different screens, and walking with the artist, they were moving around, there I feel like part of it. Because we were all moving, following all together toward it. So you in that point, you feel part of it.

Museumgoer no. 23, male, 39 years old, December 18, 2017

Well, it was very unique being able to go to each individual screen and hear that one little specific component just a tiny bit louder than the rest, but yet it still became a symphony all on its own.

Museumgoer no. 26, male, 59 years old, December 19, 2017

Comfortable and relaxed and I liked being able to move around instead of sitting in one seat listening to music.

Museumgoer no. 31, female, 59 years old, December 26, 2017

I think that the collaborative piece in this sort of environment only works if you have the spatial component as well, which is what this installation has really captured. Which is why I think it brings people in and the ability to walk around between the rooms is a vital part of the experience because it's not the same as like a flat record where you have all the tracks mixed and so I think that the way it's set up is sort of vital to the experience of the piece.
[…] and so I mean, the idea of taking all these different parts that are normally naturally together and separating them in different rooms was the most striking part of it to me. And so that the viewer cannot be stationary and just experience it as on a stage but has to interact, and so that collaborative spirit, perhaps.

Museumgoer no. 49, male, 20 years old, December 27, 2017

I thought it was pretty even throughout. It was nice the way the sound was separated to localize to each screen. It was a good factor. A good decision. So, in order to really be able to get the full impact, you had to be in the middle and then, you could walk around and sort of feel the different parts. So, it was nice.

Museumgoer no. 63, male, 64 years old, December 27, 2017

Overall, the notion of space which is underpinning *The Visitors* is that of space being not as a container, but of as something in permanent reconfiguration by means of a concerted action with social practices (Lefebvre 1991[1974], 73), that is by museumgoers' intervention. To sum up, my analysis suggests that museumgoers are highly valued in *The Visitors*, in keeping with how its spatial arrangement noticeably elicits free movement, self-identification, and community.

Tempo and repetition

Repetition (or cyclicity)[73] also seem to be contributing to building togetherness and commonality. Repetition emerges very prominently in *The Visitors* and deserves analytical attention. Repetition clearly differs from a sense of linear progression or novelty. I propose that because the installation-work is musically enmeshed in a dynamic of repetition of musical phrases (see section below in which I discuss the poem's meanings and the melodies to which it is set), as if these were rituals, an emotional stance stands out as a fairly short-lived emergent scenario favouring interactive prospects not only between the musicians themselves but also between the installation-work and the museumgoers, as well as between museumgoers themselves. Indeed, the piece consists of constant repetition, having an almost hypnotic effect. At the same time, repetition is never exactly the same, allowing some variation created by adding new singers, body movements, harmonies, volume and instruments, thereby evoking nuanced meanings. Indeed, the whole composition seems to be structured not as a conventional song, but with a view to engender communal experiencing.

Repetition is among the features, Turino (2008) argues, that proved very effective in engendering social comfort, a sense of belonging, and social bonding. Richard Middelton (2006, 137) posits the meanings of repetition to be multiple: on the one hand, it links with life in that it effectively affirms subjectivities through reiterating their markers (gender, sexuality, race and ethnicity, class and generation); on the other hand, it is contrary to real life in that it prevents its freshness to emerge and reveal. Furthermore,

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[73] Repetition is a very common trait in Ragnar Kjartansson's musical compositions, which he attributes to having attended his parent's regular participation in play rehearsals as a child (Auslander 2012). Kjartansson actually calls his musical repetitions "loops" (Auslander 2012).

repetition links with capitalism and its mass reproduction machine. Middleton (2006, 142) also argues that repetition links with sensuality and sometimes, even building on an orgiastic move. In his paper "'Play it Again Sam': Some Notes on the Productivity of Repetition in Popular Music" (1983, 261), Middleton posits that repetition has long been seen in two ways: as commercial manipulation and as an "hypnotic" strategy putting audiences into a state of collective trance. He moreover notes that musical repetition is usually associated with pleasure, possibly recalling the repetitive sounds heard in our mother's womb (p. 261-263). In linking with ritualistic practices, repetition reaffirms the articulation of a community over and over again. For Small (1998, 95) rituals "[…] are patterns of gesture by means of which people articulate their concepts of how the relationships of their world are structured, and thus how humans ought to relate to one another." Drawing on the aforementioned views, I suggest that *The Visitors* functions as a ritual in that it articulates, explores, and celebrates through repetition shared meanings.

Rhythm and tempo are likewise used strategically. The music is in *triple* meter, which van Leeuwen (1999,48) associates with "close couple dances" conveying togetherness while also maintaining room for "self-expression and privacy." Furthermore, the song is performed in slow tempo[74]—it is measured at a quarter note = 60. As one crosses the black curtains separating *The Visitors*' gallery from the rest of the museum, one immediately feels like a great slowdown. In other words, and again drawing on van Leeuwen (1999), I suggest time is here expressing the feminine, sentimental, leisure, and the salon, often associated not with the everyday but rather with the exceptional and the noble (Leeuwen 1999, 51). Tempo, combined with the aforementioned repetition and cyclicity and/or recursivity, builds on a platform for being, a space for contemplation. Repetition allows the museumgoers to extend time so as to allow for self-reflection. As one enters the gallery curtains, there is a great sense of slowdown, a space for dwelling, a space for durational temporal experiments, expanding from the inside.

The combination of the aforementioned slow tempo and repetition of melodies deserve further consideration. Returning to Van Leewuen (1999) who posits melodies to serve as a *setting* or *action* (see appendix C), I argue that the melodic patterns used in *The*

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[74] According to van Leeuwen's (1999) toolkit, in *The Visitors* time is *measured*, *monorhythmic*, *metronomic* and *regularized*, with all these features suggesting conventional synchronization, a trait often displayed in Western musical practices.

Visitors play out in action terms. Melodies emerge as *sound acts* in the sense that each has its own beginning, middle and end, thereby constituting a cohesive entity postulating an idea. The fact that the melodies repeat continuously and cyclically suggests that they are functioning as *sound settings* (see appendix C) and more specifically as *environmental organic settings* (see appendix C) in the sense that they have oscillating textures, their melodic patterns varying slightly across the different pitch lines and with their arrangements and dynamics clearly varying. On the whole, the installation-work builds a platform set aside for intensified listening, resonance, and participation. Some museumgoers' accounts also corroborate my understanding of the breakthrough role played out by repetition and tempo, as follows:

> *It was very captivating, and I think the repetitive mode of the song is absolutely capturing and it's the way to describe it.*
>> Museumgoer no. 58, male, 29 years old, December 27, 2017

> *But there was something of what they were sort of repeating too that was kind of sad about it all about that.*
>> Museumgoer no. 42, male, 69 years old, December 26, 2017

> *It is very much a world that you enter into.*
>> Museumgoer no. 13, female, 24 years old, December 18, 2017

> *I think it moves a lot of people from where they are into another space. And I was moved in and out of that.*
>> Museumgoer no. 32, female, 60 years old, December 26, 2017

I will now explore *The Visitors'* meanings through some authors who shed light on the social relevance of music. Hesmondhalgh (2013, 84-89) has stressed music's effectiveness as a tool to flatten differences and to build the necessary commonality for the human species to pervade. The ways in which the author posits "togetherness," nonetheless, are ambivalent in keeping with that he notes music to also function as a space for differentiation and articulation of a "defensive and even aggressive form of identity" (ibidem, 85). In his book *Musicking, the Meanings of Performing and Listening* (1998),

Christopher Small vastly expands on humans' predisposition for communality and collectivity and on music's capacity to articulate both senses. For Hesmondhalgh (2013, 100), whereas capitalist societies foster social fragmentation, participatory musical practices are at the basis of more egalitarian societies. Turino (2008, 1) argues "[…] that musical participation and experience are valuable for the process of personal and social integration that make us a whole." I will now discuss *The Visitors* against the four fields of musical performance mapped by Turino (2008), namely: *participatory performance*, in which high relevance is given to have people experiencing and participating and which understands music to be a social activity; *presentational performance*, which involves a musician or a group of musicians playing for an audience thereby relying on a clear separation between artist-audience; *high fidelity*, which refers to the practice of recording a musical performance for it to be heard later as a surrogate of the live event; and *studio audio art,* which refers to music specifically built to be played and recorded in a studio and which cannot be reproduced in a live situation. Although *The Visitors* shows strong focus in eliminating artist-audience distinction—as I have demonstrated on the grounds of both visual, musical, and spatial strategies—I believe it cannot be considered to fall specifically into the category of *participatory performance*, but rather into something in between the categories of *participatory performance*, *presentational performance* and *high fidelity*. Indeed, it acts as if it develops within the actual time in keeping with it strongly seeks to engender participation or, at the very least, a feeling of participation. Moreover, the actual sound heard within the gallery is not the installation-work's sound alone, but rather its sound comingled with the voices of museumgoers. As Turino (2008, 35) states, *participatory performance* "[…] is about the opportunity of connecting in special ways with other and experiencing flow," an effect that I have clearly observed during my research at the San Francisco's MoMA and that has also been openly reported by museumgoers' accounts. Together with the aforementioned strategies of conveying a sense of "togetherness," mention must be made of a trend for the audience to reach rhythmic synchrony of movements and gestures which provoke comfort and a disposition for togetherness, belonging and social identity (Turino 2008, 48-50).

Emotional response

Museumgoers' also referred that the installation-work evoked feelings such sadness, happiness, excitement, and nostalgia, as follows:

I was trying to deny it, but there's almost as if there was an emotional response to it. I think it was just the way I could hear it and almost feel the sounds at the same time in my chest. It was moving, almost. Like I say.

Museumgoer no. 20, female, 19 years old, December 18, 2017

I could feel all my emotions throughout, like happiness, I could feel sadness, I could feel everything together. It was a very good experience.

Museumgoer no. 62, male, 19 years old, December 27, 2017

Oh, yeah, so sense of humanity. One time another woman walked up to me and said, "Isn't this so emotional?", and she said, "I'm about to cry." I mean there was a lot of contact with other people looking at the screens.

Museumgoer no. 64, female, 64 years old, December 27, 2017

A little melancholy. It was a melancholy song. But also, pretty calm.

Museumgoer no. 77, female, 21 years old, December 27, 2017

Yeah. I thought we all have different lives and live in different places, but music kind of brings people together. And they all have to do with the same human emotions. And we all experience those emotions together. And then when they come together in the end, that kind of shows that we should come together as a people.

Museumgoer 71, male, 21 years old, December 28, 2017

But I really appreciated how calming and relaxing I felt through the whole thing because I could see the musicians in these were really sort of in almost like a trance-like state. Listening to each other and playing whatever or singing or playing whatever they were playing. Really soothing to listen to.

Museumgoer 10, male, 22 years old, December 18, 2017

It was probably the most touching piece in the whole museum.

Museumgoer 11, male, 22 years old, December 18, 2017

Well, I cried a little bit. That was something beautiful to see, something deep, original and multimedia with a lot of creativity but with feeling and expression.

Museumgoer 22, female, 32 years old, December 18, 2017

It did enlist in really strong emotions. Just kind of pure joy [inaudible]. I liked everyone else's reactions. I liked to look at their faces and everything else. Kind of stunned.

Museumgoer 30, female, 25 years old, December 19, 2017

[...] a lot of emotions inside the music.

Museumgoer 62, female, 19 years old, December 27, 2017

Koepnick (2021, 63), professor of German, Cinema and Media Arts at Vanderbilt University, indeed posited *The Visitors* to "[…] express the seemingly impossible, namely a simultaneity of multiple and at first contradictory affects and emotions, in this case a messy blend of elation and melancholy, separation and sociability, interiority and exteriority."

In considering what might have elicited such emotional responses, the significance of several musical characteristics come to the fore. In arguing for music' significance in this regard, I am drawing on my own analysis (see below) and on Thomas Turino's (2008) perspectives on music semiotics. Indeed, Turino (2008, 15) argues that music is highly predisposed to a non-symbolic interpretation[75] and, hence, emotional engagement. Whereas mathematics, teaching, academic and scientific communication draw on the notion of signs to have a symbolic interpretation—that is, the meanings of signs are generally accepted—the arts and music especially draw on signs' indexical or iconic interpretation—that is, its meanings are left to each one's interpretation in accordance with their own past experiences and imagination. This being the case, music

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[75] Symbolic communication draws on a general acceptance of the signs' meanings in which the sign is acknowledged a specific meaning; non-symbolic communication, in turn, draws on a preponderance of iconic and indexical signs occurring at the same time through chains of effects which involve and integrate "[…] different parts of the self which are sometimes conventionally referred to as 'emotional,' 'physical,' and 'rational.'" (Turino 2008, 15).

is particularly prone to stimulate the imagination, activate sensorial reactions, and emotional responses.

Taking into account the above, I will describe how *The Visitors*' musical features intertwine with the poem to yield meanings and elicit emotions, focusing on melodies, dynamics, tempo, repetition and cyclicity.

Melodies embody a layer of meaning emerging through a configuration of choices. I argue that melodies convey the meanings of the poem. I start with the analysis of the poem followed by the melodies, rhythm and their articulation with the poem.

The poem *Feminine Ways*, written in 2010 by Ragnar Kjartansson's ex-wife, Ásdis Sif Gunnarsdóttir was set to music by Ragnar Kjartansson. It reads as follows:

A pink rose
In the glittery frost
A diamond heart
And the orange red fire

Once again I fall into
My feminine ways

You protect the world from me
As if I'm the only one who's cruel
You've taken me
To the bitter end

Once again I fall into
My feminine ways

There are stars exploding
Around you
And there is nothing you can do

Having been written by Ragnar's ex-wife following their separation, Koepnick (2021, 68) argues that the poem expresses the pain she felt following the separation. She considers *Feminine Ways* to function "[…] as a form of homeopathic cure, swallowing what causes pain, not in order to master it, but in order to learn how to move with it, to ease its burden by moving and thereby resituating it." Koepnick (2021, 68) moreover conceives Ragnar's decision to set it to music as a gesture articulating "[…] his own act of withdrawal, of recognizing, by hosting it, what has become and desires to be and remain strange." My analysis of the poem, nonetheless, seeks to move away from considerations grounded on Ragnar's statements. My task is rather to ponder, by drawing on social semiotics' method of discourse analysis,[76] the meanings grasped by museumgoers who visited the installation-work without reading the poem *Feminine Ways* or having access to the information about its circumstances of creation. As I argue in chapter one, methods stemming from social semiotics attempt to interpret the possible meanings conveyed by modes. Whereas semiotics developed its approach around signs, social semiotics' methods indeed understand their objects of analysis to be *semiotic resources*, in keeping with how its meanings are always potential and affected by the specific instances of use.[77] The fact that the medium of expression in *My Feminine Ways* is poetry, moreover renders the interpretation of its meanings with greater freedom. Like the majority of texts in which there is a dominant poetic function, the language is more ambiguous than conventional prose in that it tends to undermine a direct connection between a semiotic resource and a referent in favour of the expressive act.[78] Finally, my purpose in this analytical chapter is not to construct separate accounts of the various semiotic modes, but rather to investigate how they intertwine to produce meaning. This means that to talk about the *Feminine Ways'* representational and experiential meanings necessarily entails talking about how its words have been put into music, an approach that I will adopt.

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[76] Similarly to the methods deployed on the analysis of the other modes, I here rely on discourse analysis, anchored on Halliday's systemic functional linguistics (SFL) and grounded on social semiotics, as it allows me to discuss the text as a social phenomenon.

[77] As stated by Theo van Leeuwen in his book *Introducing Social Semiotics* (2005, 3), "In social semiotics the term 'resource' is preferred, because it avoids the impression that 'what a sign stands for' is somehow pre-given, and not affected by its use."

[78] As poetic texts are often centred on the message itself, they tend to be self-referential (Manoliu 2017).

Starting with the analysis of the poem, discourse analysis comprises two major analytical tools,[79] namely *genre* which focuses on the cultural context, and *register*, focusing on the specific situation being addressed (see footnote 52 and/or appendix B). Poetic texts often comprise an emotive function aiming at a direct expression of the author's attitude toward what s/he is speaking about. It tends to produce an impression of a certain emotion, whether true or feigned, an understanding that clearly fits the purposes of the poem here, as we will see. As to register, it deals with expectation, that is, with the meaning potential of a given situation which is analysed on three levels: the subject of the text; the kind of interaction that the text allows; and the text's coherence.[80] My analysis of the poem's eleven clauses signposted the following participants (also see table 2 bellow): actors "you," and goals, "the world from me," and "to the bitter end;" the carrier "I" and the attribute "the only one who's cruel;" the behavers "I" followed by the processes "fall into my feminine ways;" and the existents "A pink rose in the glittery frost;" "A diamond heart;" "And the orange red fire;" "stars exploding around you;" and "nothing you can do." Clause [6] contains an embedding clause in the sense that its attribute "the only one who's cruel" is the carrier of the following clause [7]. These elements are engaged in material, relational, behavioral, and existential processes, distinguished by the specific verbs in use (for detailed explanations about the type of processes and their prospective meanings see appendix B). Below I provide a detailed analysis of the clauses' components.

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[79] Discourse analysis is detailed in appendix B. My description of its tools here is always brief and only provided when it is imperative to recall them for the reader to follow my arguments.

[80] Register stems from the understanding that language comprises three levels of meanings. Its tools break down into three components: *field*, *tenor*, and *mode*. *Field* is committed to grasp the patterns of experience (actions, happenings) in which participants (actors and goals; carriers and attributes; behavers; and existent) are involved, that is, the subject matter of the text—it aims at grasping the representational metafunction. *Tenor* is committed to grasp the ways in which the text allows readers to interact with it in keeping with the fact that a text also encodes the author's position towards the subject—it aims at grasping the interactional metafunction. *Mode* is committed to grasp how coherently the text is set—it aims at grasping the textual metafunction (for a more detailed explanation see appendix B about Discourse Analysis).

1ST STANZA

[1] [There is] A pink rose
In the glittery frost
[2] [There is] A diamond heart
[3] [There is] And the orange red fire

CHORUS

[4] Once again I fall into
My feminine ways

2ND STANZA

[5] You protect the world from me
[6] As if [7] I'm the only one who's cruel
[8] You've taken me
To the bitter end

CHORUS

[9] Once again I fall into
My feminine ways

3RD STANZA

[10] There are stars exploding
Around you
[11] And there is nothing you can do

Legend:

[ ] — clause number

▮ — actors and goals; carriers and attributes; behavers; and existents[81]

And — processes (verbs)

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[81] The representational metafunction refers to "the meanings we make in order to engage with, understand and refer to our world" (Ravelli 2006, 7). The ways in which humans experience and interpret the world translate into patterns of experience involving the objects (participants) and relationships (actions) linking them. In another words, patterns of experience are realized in verbal language through *participants* with the actions made between participants called *processes*, and with *circumstances* associated to the processes. In analytical terms, this entails grasping who are the participants in a statement and what are they engaged in (action determined by a verb). Following Halliday's systemic functional linguistics, *participants* are who/which realise semantic functions, that is who/which play the most crucial roles (such as *actor*, *goal*, *recipient*, *carrier*, *attribute, behavers,* and *existents*). Ascertaining which role a particular participant is playing requires identifying the process (verb) in which he/she/it is involved.

In the following table, I highlight the processes (by means of verbs) in which the participants signposted (see above) are engaged in:

Table 2 — Analysis of the poem *My Feminine Ways* in terms of processes

MATERIAL PROCESS: DOING		
ACTOR	PROCESS	GOAL
5. You	protect	the world from me
7. You	have taken	me to the bitter end

RELATIONAL PROCESS: BEING		
CARRIER	PROCESS	ATTRIBUTE
6. [As if] I	am	the only one who is cruel
7. [[I'm the only one who	is	cruel]]

BEHAVIORIAL PROCESSES: PHYSIOLOGICAL AND PSYCHOLOGICAL BEHAVIOR	
BEHAVIOR	PROCESS
4. *Once again* | I	fall into | My feminine ways
8. *Once again* | I	fall into | My feminine ways

EXISTENTIAL PROCESSES: EXISTING AND HAPPENING	
PROCESS	EXISTENT
1. [There is]	A pink rose | In the glittery frost
2. [There is]	A diamond heart
3. [There is]	And the orange red fire
9. There are	stars exploding | Around you
10. And there is	nothing you can do.

The poem's subject is *My feminine Ways* which is depicted through the poetic persona "I" which personifies her feminine ways with whom she speaks directly OR with which she dialogues. I argue that this poetic persona depicts "feminine ways" ambivalently throughout the whole poem in two ways: within the stanzas proper by deploying contrasting clauses; and in sequence, by contrasting stanzas one and two with stanza three. Both expressions are also articulated musically, alongside the whole song.

The musical materials used for this are melodies *a*, *b*, and *d* transcribed below, and its homonym sections,[82] A, B, and D.

The Visitors
Theme 'A Pink Rose'

Ásdís Sif Gunnarsdóttir   Ragnar Kjartansson

A pink rose   In the glittery frost   A dia-mond heart   And the orange red fire

Figure 57 — Melody *a*

The Visitors
Theme 'Once Again'

Ásdís Sif Gunnarsdóttir   Ragnar Kjartansson

On- ce a- gain I fall in- to   My fe-me-nine ways.

Figure 58 — Melody *b*

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[82] For the sake of clarity, I have opted to signal melodies with the same letters as those applied in Ragnar Kjartansson's sketch. Accordingly, I refer to melodies *a*, *b* and *d*, instead of *a*, *b*, and *c* in that, in Ragnar's sketch, C refers to an instrumental section that appears after sections A and B and before section D.

The Visitors

Theme 'There are Stars'

Ásdís Sif Gunnarsdóttir   Ragnar Kjartansson

The- *re are stars*   *Ex- plo- ding*   *A-round*   *y-ou*   *And There's* *no-thing*   *no-thing*   *you*   *can do*

Figure 59 —Melody *d*

Each melody is given its own style and cohesion. Sections are built on the basis of the singers repeating melodies a variable number of times (from one enunciation to twelve enunciations or more (the very final section B reaches well beyond this).

At the beginning of the poem, in the opening stanza, the text opposes the fragility and vulnerability of "a pink rose in the glittery frost" with the fiery passion and strength of "a diamond heart, and the orange red fire." All these statements are linguistically realised by existential process[83] which are very strong in positing the things the way they are. This stanza is given melody *a,* and attributed section A, both set in Dm.

Well delineated, given the internal cohesion established by starting in dominant A and finishing on the tonic Dm, melody *a* posits the ambivalence of the words to which it is set by contrasting a first section of mainly descending small intervals (first clause), as if suggesting the contention of being vulnerable, with the second clause's ascending movement attached to the words *A diamond heart*, somehow introducing force and passion through a sense of activation and making room for emotional expansion.

The second stanza (clauses five, six, seven, and eight) is similarly set to melody *a*. Clauses five, six, seven, and eight make use of action and relational process to express the extent to which the *feminine ways* condition the author. Here, the poetic persona turns to her *feminine ways* by means of the pronoun "you" to somehow accuse them of her subjugation to the feminine ways which she understands to be outside her own person by means of the pronoun "you." This set of clauses is indeed the one tackling the poetic

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[83] Often, "existential processes" indeed do not necessarily construe the experience of a physical world but can take the reader into an expanded imagined world.

persona's suffering from having fallen into his/her feminine ways more acutely. Specifically, the poetic persona makes use of two actions to characterize what the feminine ways do to her—you protect the world from me | you've taken me | to the bitter end— and two relational processes (one embedded) to ironically reveal the ways in which she is viewed by her feminine ways ("as if I'm the only one who's cruel").

Clause four verbalizes the poetic persona "I" to have fallen into her feminine ways by means of a behavioral process. In musical terms, after melody *a* describing the "feminine ways" with the three first clauses (A pink rose | In the glittery frost | A diamond heart | And the orange red fire), melody *b* appears to declare that the author has fallen into his/her feminine ways. Melody *b* (figure 58 above) is indeed the refrain for it mostly undergoes repetition. It accommodates two clauses "Once again I fall into | My feminine ways" and is operated by two well defined musical phrases. Melody *b* is similarly well delineated and given internal cohesion by starting in dominant A and finishing on the tonic Dm. Its pitch movements are slowly descending as if expressing calmness and nostalgia, but also sorrow and languishing, somehow bespeaking the poetic persona "I" to have a certain disappointment, or at least inescapable acceptance, for having fallen again into her feminine ways. Its rhythm suggests cyclicity and the ongoing, as if the author is within a rotation from which she cannot escape.

Lastly, melody *d*, feeding sections D, operates as a different melodic pattern supporting a change of mood. Melody *d* is given the lyrics posited by the third stanza, "There are stars exploding around you | and there's nothing you can do." Although Koepnick (2021, 67) has postulated these words to be conjuring "[…] a dramatic scene of destruction and death […]," I argue that they are rather marking a noticeable change from the inactive role with which the poetic persona was previously depicted (stanzas one and two, and chorus) to a feeling of joy and excitement (there are stars exploding around you) within which the person is now immersed again. This joy and excitement are similarly declared to the full in that they are depicted by means of existential process. This becomes even more evident as we take into consideration the character of its entwined melody *d*.

Melody *d* is distinct from *a* and *b*. In a major key, the pitch range is larger, and the melody develops through larger steps, all of this possibly conveying the excitement, pleasure and joy deriving from the poem's phrases: there are stars exploding | around you | and there is nothing you can do. The course of the music, notwithstanding, brings the

poem back to first stanza (clauses one, two, and three) and thereby again enclosing the poetic persona within a repeated anguish and pleasure of returning to the incident of falling into her feminine ways.

Having set *The Visitors'* melodic materials, the diagram below summarizes the melodies and musical sections that correspond to each stanza and chorus.

1ST STANZA

[1] A pink rose
   In the glittery frost
[2] A diamond heart
[3] And the orange red fire

Melody a | Section A

CHORUS

[4] Once again I fall into
   My feminine ways

Melody b | Section B

2ND STANZA

[5] You protect the word from me
[6] As If [7] I'm the only one who's cruel
[8] You've taken me
   To the bitter end

Melody a | Section A

CHORUS

[9] Once again I fall into
   My feminine ways

Melody b | Section B

3RD STANZA

[10] There are stars exploding
   Around you
[11] And there is nothing you can do

Melody d | Section D

Mention must also be made of how the whole sequence developed. Ragnar's sketch below clearly details which sections follow one another and similarly reflects my

own analysis of the whole piece. For better comprehension, it should be read in articulation with the diagram above.
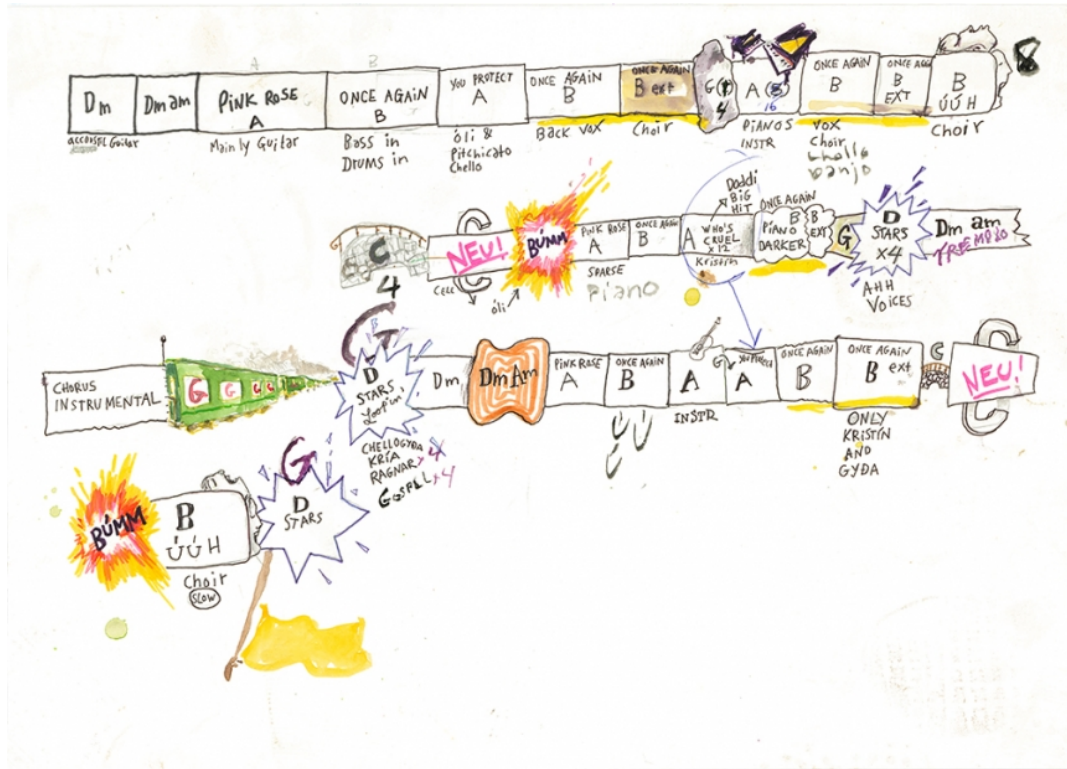
Figure 60 — *The Visitors*' musical plan by Ragnar Kjartansson. Photo assessed in 2018 through Internet search.[84]

The sequence of sections ends twice (see figure 55 above) with an explosive sound (boom)—represented as an explosion in the sketch above. The sound followed from people in the garden launching a canon (as depicted in channel 7) after two great crescendos resulting in a *fortissimo* musical climax. These two detonations were followed by a musical pause, and the performance resumes soon after. The canon's firing thus ends up functioning as a powerful distressing and emotional breakup which also fulfils the role of securing musical unity. The sketch moreover depicts instrumental bridges and interludes serving the purpose of navigating between key modes thereby creating emotional intensity. These sections moreover serve for musicians to improvise.

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[84] https://www.icaboston.org/exhibitions/ragnar-kjartansson-visitors-1.

All the aforementioned strategies suggest that the whole musical composition to be alternating between the sadness and the excitement expressed by the different stanzas of the poem. Contrast is a recurrent tool. Provided both internally by the melodies proper and between different melodies, these have set the arena for eliciting emotions.

My textual (poetic) analysis also sought to grasp the extent to which readers are given the opportunity to interact with the text or, conversely, feel distant.[85] The fact that the poem is written in the first person, often used in an informal and spoken mode, openly posits the depiction of *feminine ways* to be personal and so, possible to be accepted or rejected by the museumgoer thereby rendering it more interactive (Ravelli 2006, 50-53). According to the same author (ibidem, 50-53), museum texts written in the third person, contrariwise, in leaving out its author, tend to be highly respected and not ready for the museumgoers to freely accept or contest. Also, the inclusion in the text of clauses that show some use of contractions thereby suggesting casual and easier to read conversation is similarly interactive (Ravelli 2006, 50-53). At the same time, nonetheless, *My feminine ways*, like other poems, is often more ambiguous than conventional prose in that it tends to undermine a direct connection between a signifier and a referent. The fact that meanings cannot be straightforwardly grasped can cause some social distance or resistance.

Another interesting discussion, falling into the interactional analysis, refers to the extent to which *The Visitors'* emotional potential set above has been grasped through an *emotivist* vs. a *cognitivist* experience. Temperly and Tan (2013, 239) distinguish between an *emotivist* view of music, which refers to when we listen to a musical piece to make ourselves "feel a certain emotion," from a *cognitivist* view of music encapsulating how "we take the musical piece to indicate or express a certain emotion." Ultimately, it seems to me that emotional responses grasped within the scope of a *cognitivist view* end up falling into representational meanings in the sense that the researcher assumes that the music represents a given emotion(s). Emotional reactions grasped within the scope of an *emotivist view*, on the contrary, end up falling into experiential meanings in the sense that the researcher assumes that the music induces a given emotion(s) in the listener. Museumgoers' interviews provide some insights in keeping with how they construed their own discourses.[86] My analysis proved the total number of interviewees either reporting

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[85] These are grasped by the analytical tool *tenor* which refers to interactional meanings (see appendix B).
[86] The key to one or another approach simply depends on the museumgoer stating "I felt happy and excited" vs. "I find it happy and excited."

or not reporting some sort of emotional response as 81. Subsequent data analysis proved 8 out of these 81 interviewees specifically mentioned they did not feel emotional in any sense. Responses of museumgoers referring to some sort of emotional response total 152 sentences/references, 82 from an *emotivist* and 71 from a *cognitivist* point of view, which clearly puts a balanced weight on both perspectives. I find these results stimulating towards developing further empirical research within the scope of musical topos "[…] as a set of musical entities that is delimited and furnished with meaning by extramusical associations in a listener population" (Huovinen and Kaila 2015). However, it is important to point out that the extent to which emotional arousal developed more on the grounds of musical or visual stimuli has yet to be determined.

Plural readings

The contents, discursive/narrative paths, spatial disposition of *The Visitors* allow for a plurality of perspectives, and there is clearly no ideal viewing position.[87] The fact that *The Visitors* is a spatial installation-work is also a distinctive feature with implications for the music analysis: indeed, due to its spatial layout, museumgoers have the opportunity to move and experience sound in multiple ways as I shall explore below. That the installation-work is three dimensional, hence, each musician's track is displayed through a specific channel distributed across the gallery's walls, allows each musician's track to be either very close or less audible,[88] depending on the specific museumgoer's location. This results in a markedly dynamic perspective for each musician/channel. These can moreover be understood through increased or decreased proximity, i.e., moving from very close to distant or the inverse, depending on how museumgoers move.

Similar considerations can be made when considering the musical layer proper. The fact that the installation-work was recorded in one take renders the performance spontaneous. As to perspectival relationships among the different musical lines of the song proper, these are dynamic in the sense that the prominence of a specific musician/musical line is not the same throughout the entire duration of the piece and that there is rather a permanent interchanging of hierarchies. The voices could be identified as tending to be at the forefront, although this is not always the case. Slight prominence is

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[87] For Koepnick (2021, 72), museumgoers "[…] find themselves void of any stable, ideal, and sovereign viewing position."
[88] Theo van Leeuwen (1999) posits sound to be *figure*, *ground* or *field* according to how distant it sounds.

sometimes attributed to male voices, on some other occasions and on still others to one instrument or another. The two launchings of an old canon stand out as the most foregrounded sound in the whole piece. There is also the sound of cicadas, which are sometimes almost inaudible but become very close when either one or none of the musician are playing. When the voices are foregrounded,[89] the lyrics may receive similar significance. The texture is rich—at its fullest, it comprises eight single voices and instruments and a choir of people (on the porch) singing and playing at the same time—but the recording is of great quality for each musician can be heard clearly.[90] Ultimately, each melody constitutes a "speech act" (van Leeuwen 1999, 80) with each musician ascribed the space to utter his/her own statement—and this despite the dominance of the principal melody and, likewise, a sense that each voice assumes significance in relation to the whole. There are no solo performances, despite Ragnar's brief opening which marks the beginning of the performance. The instrumental sections, marked as C in Ragnar's musical plan (figure 60), are likewise performed by every musical instrument, a trait suggesting that the whole set performs as a harmonious cooperative interaction.

3.3. CONCLUDING OBSERVATIONS

The Visitors is a multimodal, three-dimensional installation-work deploying a representation of the activity and the pleasures of *musicking* with a group of friends and providing museumgoers with a rich musical experience. By considering space as a meaning-making parameter, the installation-work asserts the museumgoers as part of its contents and becomes a canvas on which **individual** subjectivities and a communal sense of **togetherness** could be experienced. This ultimately leads me to conclude that in *The Visitors*, the meaning of the text is apprehended not through reading nor even through interpretation, but through experience. This is of heightened significance in the context of contemporary museum practices which have been more and more valuing and pursing multisensorial curatorial practices aiming for museumgoers to be fully enveloped by the objects and experience their message.

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[89] That is to say, when they become *figure*.

[90] According to the social semiotics of music, the *interaction between voices* also produces meaning. *The Visitors* displays a simultaneity of voices with each voice and musical instrument heard clearly. The voices moreover develop a *parallelism* even while each is ascribed its own melody and pitch, a trait suggesting that each plays a vital role in conveying *plurality*.

As a multimodal installation-work, it comprises different meaning-making modes through its own materialities and the ways in which they are combined and articulated. The materials used include: film footage deploying a group of eight musicians and a chorus made up of the Rokeby farm' residents singing and playing musical instruments in a setting of remarkable grandiosity and refinement but also in a process of decay; the song-poem *My Feminine Ways*, in which stanzas and melodies explore the ambivalences of the human feminine ways, especially fragility and sadness but also passion and joy; specific musical features such as repetition and slow tempo that create a sonic platform for reflexivity, but also for a concerted celebration of sadness and joy; and space, which allows sound to be sculpturally constructed, its emotional resonance and relationality being articulated to enable museumgoers to experience their individual subjectivities and an embodied sense of togetherness. In communally articulating how humans build togetherness, that is, how they relate with each other in an idyllic way, the installation-work ultimately functions as a ritual performed by both musicians and museumgoers.

As part of the exhibition *Soundtracks* which was held at San Francisco's MoMA, *The Visitors* falls into the genre *sound as art* described in chapter two. Indeed, it deals with some of the most referenced sound art's subjects and approaches, namely the attempt to engender intimacy and audience participation and to articulate social relationships. The fact that it uses the sound of a canon as a musical punctuation and the presentation in a museum of images enacting the presence of the musicians also falls into the overall aim of soundart to subvert the most conventional presentational musical practices.

The Visitors contributes to contemporary museum studies' most pressing issues, assumptions and practices. I am referring to how its experiential nature and effectiveness in nurturing participatory modes of engagement responds to some of the aims of museum practice since the establishment of the new museology in the 1980s: the widely acknowledged assumption that museums must actively involve the communities they serve by adopting a widely expansionist approach to museum interaction, a trend which Macdonald (2011, 8) designates *visitor sovereignty* and which encompasses "[…] 'accessibility,' 'diversity,' 'community,' 'interactivity,' and 'visitor involvement.'" In this regard, space and music, in allowing the installation-work to consubstantiate a shift from representation to experience, are the modes contributing the most to fulfil this museum's path. Also, in providing museumgoers with opportunities to accept or reject its

contents and in opening trajectories towards plural readings, *The Visitors* aligns with the idea of a plural public which is one of the most cherished aims of the new museology.

CHAPTER FOUR—TOWARDS A FRAMEWORK FOR MUSEUM LISTENING PRACTICES

The idea of sound as a product to be appreciated solely through listening made possible through the post war hi-fi culture has been increasingly giving way to new practices involving multimedia. As sound has entered the museum, new exhibitive approaches and multimodal products have emerged, fostering new listening modes. I designate these new exhibitive practices as sound-based multimodal museum practices. As these are new site-specific sound practices, there is the need to analyse them adequately, that is, as holistic experiences from which meanings are dynamically construed by museumgoers on the basis of the articulation of different media.

This thesis examines the exhibition of sound in museums, conceptually and in practice. It has attempted to contribute towards the study of sound in museums as a cohesive field and to understand the sensory formation shift from a visual epistemology to one comingling the visual and the auditory, rendering museum practice richer and more truthful in representational terms, and engaging in experiential terms. In detail, my research focused on: categorizing sound-based multimodal museum practices; and examining the meanings and opportunities opened up by the exhibition of sound in museums as part of a multimodal ensemble as exemplified by a case study. The idea of proposing an all-encompassing framework of categories emerged out of my realisation that the absence of such a framework was largely limiting the examination of sound exhibited in museums. As I analyzed a variety of contexts and set-ups across which sound was exhibited in museums, I realised that the first and most fundamental step was to propose a framework categorising sound-based multimodal museum practices. Having set the framework, my second purpose was to proceed with the analysis. I have thus begun expanding on the representational and experiential (emotional and sensorial) opportunities opened up by sound as part of a multimodal ensemble by analysing the installation-work *The Visitors* which falls into one of the categories I propose, namely *sound as art*.

In terms of disciplinary fields, I drew on ethnomusicology, sound studies, and museum studies. Several concepts were fundamental in the development of a framework for addressing the research problems enunciated in chapter one. The understanding that

there has long been a trend to depend exclusively on vision, in a sort of opposition to the oral/aural senses, to produce knowledge has been crucial throughout the process of developing the five-use framework of sound-based multimodal practices presented in chapter two. In detail, and together with some other tools presented in chapter one, it has provided me with the criteria for establishing the categories of the uses of sound in museums. Representation, in turn, was crucial for the undertaking of my analytical process of the installation-work *The Visitors* in chapter three. I unpack the exhibition using two complementary perspectives: the *conceptual*, a set of concepts endowing meaning to a phenomenon, and the *signifying*, a set of signs (objects, texts, images, sounds and space) representing those concepts and the associated exhibitive strategies. I conceptualise sound as a medium that: encodes historical, cultural, economic, social, political and semiotic content; engenders aesthetic pleasure and fruition; and evokes emotional and kinetic responses, and memories.

I visited sixty-nine sound-based multimodal online and onsite exhibitions displayed in Europe and in the United States with a view toward understanding the uses of music and sound in museum exhibitions. I selected the installation-work *The Visitors* by the artist Ragnar Kjartansson for analysis with a view toward understanding the meanings opened up by sound as part of a multimodal ensemble. Two methodologies grounded my work: ethnography and those derived from social semiotics, especially the grammar of visual design, discourse analysis, and music semiotics. All three analytical frameworks fall into the realm of systemic functional linguistics, which means that my examination of the modes' capability to create meaning has relied on investigating the relationships between signs, users, and processes. The interviews I conducted with museumgoers were analysed qualitatively. My analysis of the installation-work developed along two parameters: representational, that is, to examine the opportunities opened up by the modes deployed in narrative terms; and experiential, namely by examining how, together with the other modes, sound can elicit emotions, and by examining how its materiality can stimulate a sensorial response. The analysis unfolded into two actions: the first one involving the application of the tools provided by the grammar of visual design, discourse analysis, and the social semiotics of sound; and the second involving a discussion by placing the findings of the study in relation to the set of concepts deployed in the theoretical section.

Categorisation facilitates the understanding of a complex and, sometimes ungraspable landscape. My ten-year observation of exhibitions demonstrated sound-based museum practices to be very broad and diverse and, therefore, the need for a structuring framework. My analysis resulted in the proposed five-use' framework: *sound as a "lecturing" mode*, *sound as an artefact*, *sound as "ambiance"/soundtrack*, *sound as art*, and *sound as a mode for crowd-curation*. This framework was developed through a bottom-up approach, that is directly from the analysis of sixty-nine exhibitions. Data were grouped according to their underlying epistemological orders and related conceptual sound-related constructs, the wider social and cultural contexts in which these are embedded, and existing and emerging technological devices. In developing the proposed categories, I considered the boundaries to be driven by internal resemblance and congruence—this means that efforts were put on avoiding the use of socially constructed categories. In providing this framework, however, I am cognisant that a category is always a subjective interpretative model inherently exposed to permanent flux (Castelo-Branco 2013). Taking this into consideration, I understand my proposed framework to be preliminary and in need of testing and further research supporting its maintenance or reconfiguration (see below suggestions for future work).

As the five categories proposed in chapter two emerged through time, I increasingly moved away from a single underlying visual epistemology to embrace both visual and sonic epistemologies. This track interestingly parallels the pace of the developments taking place in the field of sound technologies. These have moved away from a scenario in which it was not possible to exhibit sound in museums at all to another one in which technology has been increasingly making possible sound to be exhibited in ways never imagined before.

Considering that in the multimodal installation-work *The Visitors* the images and the music are deployed in an equal position, I have come to the realization that it is ambiguous to consider sound's communicative potentials grasped through this case study as a quality of sound alone. In fact, virtually all sound-based museum exhibitions are multimodal, which means that, unless there is a clear subjugation between modes, it is not possible to isolate sound, but always to consider it as part of a multimodal ensemble. I hope, indeed, that my analysis in chapter three shows that there is no analytical gain in isolating the sonic and the visual layers for analysis, but rather assume that even when zooming into sound, we are always addressing it as part of something that is multimodal

by nature. That said, the analysis presented here should always be understood by taking into account that when I am speaking about sound, the other modes are always taken into consideration.

My proposals concerning the representational and experiential value of sound result from my analysis of *The Visitors*' and need to be tested in future analyses. I hope that they can function as starting points for further interrogation.

As for the analysis of the installation-work's musical sound, mention can be made that a set of features—such as tempo, contrast and repetition, resonance and relationality—have all contributed to engendering emotions and social meanings, as expressed in several museum goers' interviews. However, it is mandatory to add here how the installation-work reveals the importance of space. I argue that *The Visitors* clearly constitutes space as a mode affording distinct qualities and opportunities to sound-based multimodal exhibitions to perform at large. Actually, the gallery's space not only allows sound's waves to propagate; it also allows a certain group of museumgoers to unite and sound to navigate among them and to encircle them all together in the same experience. Due to this disposition, sound is deemed to resonate among bodies and to exercise its inherently relational qualities, a dimension that is of utmost significance for experiential (emotional and sensorial) meanings to arise.

Taking into account the categorisation of the uses of sound in museums proposed in chapter 2, in multifariously engaging museumgoers through sound as part of a multimodal ensemble, *The Visitors* falls clearly into the perimeter of the definitions attributed to the category of *sound as art*. In detail, *The Visitors*' analysis led me to conclude how sound's materiality is prone to reach the human body and facilitate embodied experiences, a quest often pursued by similar practices. Also, in proving sound to be effective in situating the engagement with the audience closer to the person, *The Visitors* clearly aligns with another trait commonly attributed to sound art's practices: I am here referring to sound's relational properties and effectiveness to yield intimate encounters and to build a sense of togetherness fundamental to develop community work.

As a video installation-work, *The Visitors* falls into the field of *interactive video art* (Rogers 2014). This label fits the installation-work in that this practice uses sound and space (Rogers 2014, 17-18) to build "happenings," "events," "actions" (ibidem, 18). Actually, in video art works, the audience often becomes a key compositional parameter

as a way of erasing the clear distinction that has long stood in conventional musical performances. Other video art's conventional features match those unravelled in relation to *The Visitors* and deserve reference here. On the one hand, video art has interestingly "[…] introduced a temporal element into the static arts, allowing images to unfold through time like music, a shift from art-as-object to art-as-process" (Rogers 2014, 19). The notion of art-as-process describes the installation-work. *The Visitors*' highly enveloping character has also been mentioned and fully valorised in literature about video art; through "whole-room installations" (Rogers 2014, 21) video art offers museumgoers a whole new media world which blurs with the real world.

Another dimension that can be taken into consideration is performance. *The Visitors* is a nine-channel video installation and not a live performance; the installation-work can, nonetheless, be considered performative by virtue of the force of sound's relational activity. When sound is played in the gallery it no longer belongs to Ragnar and his friends, its ownership has been greatly expanded by virtue of the performative stance. I here refer to Mieke Bal's theorizations about performance in museums. Bal (2002, 174) states that the interaction with a message is incomparably higher when it does what it says rather than just declares it, that is, when it performs its contents. That when performed in a museum gallery, musical sound per se tends to allow meanings to emerge also corroborates the notion that it is a prospective mode with which to reach museum studies and practice contemporary principles of building communities and social work. Indeed, the performative arts[91] are increasingly being absorbed by museums.[92] The category has actually attracted and appealed to museum studies researchers and practitioners given its capacity to embed and secure the beliefs and aims of the contemporary museum mindset and its commitment to communicating through experience rather than through material objects and words.[93] When analyzing the specific process of heritagisation, Barbara Kirshenblatt-Gimblett (1995; 2004) also advocates that heritage must be performed if it

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[91] For Schechner and Brady (2013[2002]), performative objects are practices, events and behaviors—rituals, plays, sport, media, the Internet, performing arts and films—instead of conventional delimited objects.

[92] The *performative* category of words may trace its antecedents to the philosophy of the 1950s as well as to the literary studies and cultural studies that incorporated the concept in the 1980s (Bal 2012[2002], 178-180); furthermore, it has since driven the emergence of the fields of performative arts and performance studies and gained great usage in the everyday discourses of museums professionals.

[93] This has additionally resulted in ideas such as the *performative museum* (Bal 2012[2002]; Casey 2003; 2005; Garoian 2001; Kirshenblatt-Gimblett 1995), which interconnects with concepts that have gained great currency in the contemporary world of museums and exhibitions such as *interactivity* (Witcomb 2011) and *immersion*—discussed in the theoretical section.

is to be transmitted. She argues that heritage does not exist in tangible or intangible objects *per se* but rather in the living experiences, values and knowledge.

My analysis of *The Visitors* suggests that the application of musical sound in museum exhibitions can convey, elicit, and arouse emotions and build on social meanings. Social meanings, dependent both on the parameters of time and space, result mainly from sound's resonance and relational capacities such as fostering internal ways of experiencing oneself and in relation to others. Being that the experience of oneself cannot be entirely separated from relationships, these meanings are truly important to nurture well-functioning societies and communities, and so, to be fully explored by museum's curators and practitioners.

Future work

This thesis focuses on sound in museums. It provides a detailed multimodal analysis of a case study, and proposes a typology of the wide-range sound-based multimodal museum practices. This final section will explore future work directions in a world in which the exhibition of sound in museums is becoming pervasive. The scope of research on sound in museums is clearly multidisciplinary in that it brings together several disciplines such as music studies, museum studies, media studies, technological studies, multimodality, and sensory studies. At the same time, the interest of pursuing research about sound in museums is well beyond advancing within the scope of each of these disciplinary fields. Indeed, research on the subject is in tandem with applied practice. Together with being of interest for museum curators and practitioners, research on sound in museums can similarly inform the work of sound designers, and companies working with sound and multisensorial technologies.

Due to the specificities of the subject *sound in museums*, there is the need to develop, at a supra level, a specific theoretical corpus. Indeed, my first goal when I decided to develop a five-use framework characterising the sound-based multimodal museum practices presented in chapter two was to take the first steps in this direction. Although my framework is preliminary, I see interest in continuing to pursue this goal. A core theoretical corpus specifically related to the subject of *sound in museums* might seem as a very ambitious goal, but I hope that my work has shown that, on the grounds if its breadth and complexity, this subject requires the development of a solid theoretical

framework. I propose that a core framework with which to approach sound in museums should incorporate at least three main research directions: (1) the historical, cultural, and media contextualization; (2) the analysis of the object; (3) the analysis of the sonic experience.

In signposting the need to begin with the historical, cultural, and media contextualization, I have drawn on Roux-Girard's (2014, 138) statement that "Every genre is thus historically connected to an ensemble of other artistic practices (e.g. architecture, cinema, animation, film, television, music) as well as other cultural practices (e.g. computer science, gaming, trekking, speleology, professional sports)." This has led me to realise the need for the proposal for sound in museums' core theoretical corpus to consider a retrospective account. In other words, to reflect on each category of the five-use framework that I have depicted in chapter two in terms of its "intermedial" influences and absorptions (Roux-Girard 2014, 138). Specifically, which languages were imported, and selected? Which dimensions from other media (TV, cinema, concerts, Ipod, dancing, and so forth) were incorporated? Which details have been rejected? Which established museum displaying models are underlying each one of the five sound-based multimodal museum categories? Do sound-based multimodal museum practices correspond to a radical break with the dominant museological practices? Can we already posit these categories to be established and autonomous? Are they going to resist, or will they be abandoned? These questions will certainly help us accessing the sonic dimension of sound-based multimodal museum practices. I believe I have started to unravel this terrain in my thesis, particularly when describing the conceptual construct *sound as a "lecturing" mode* by drawing on the work of Griffiths (2013[2008]). There is still, notwithstanding, the need to pursue this job across all five-use constructs and with a more comprehensive purpose in view: to track the cultural precursors and media origins of these new practices which I believe are clearly underexamined, to put them into perspective with other well-established exhibitive practices and with their assisting technologies, and to reconsider these practices in light of earlier ones by interplaying cultural, technological, economic and industrial factors. Ultimately, to understand sound and listening in museums within the framework of museum studies, music studies, media studies and technological studies.

The second direction for future research is the analysis of the object. If the goal is to determine the exhibited set of objects' meanings and to ponder on which opportunities

they open for museumgoers, a signifying lens needs be adopted (for a distinction between conceptual and signifying systems see chapter one). As I have mentioned in the theoretical section, studies on this view are very scarce. While I provide an example in chapter three by analysing the installation-work *The Visitors*, there is the need to continue with this task at large; that is, to continue delving into the understanding of how meaning is attributed to sound when exhibited in museums across each one of the five-use typologies. This with a view to determining the opportunities opened up by sound as part of the multimodal ensemble globally within each type.

Throughout my analysis of the installation-work *The Visitors*, I have considered representational and experiential (emotional and sensorial) parameters. On the basis of the multifarious meanings ethnomusicology has attributed to sound, I think that this approach is adequate for future research focusing on the sound mode. I thus continue putting an accent on social semiotics' methods in that these consider not only representational, but also experiential opportunities offered by modes, and so can somehow consider the museumgoer's experience in the scope of the situational and contextual parameters. In fact, as has been argued, it is untenable to consider that sounds derive their meanings from their own intrinsic characteristics. Although each parameter may posit its own pitfalls, representational meanings stand out as the most challenging. Sound's meanings have long been a subject of interest, from ancient Greek philosophers to current research in diverse disciplines such as ethnomusicology, musicology, linguistics, psychology, and cognitive neuroscience. Issues around sound's meanings, nonetheless, are very difficult to tackle and still lacking comprehensive and coherent answers.

It is worth recalling that when exhibited in museums, sound is always nested within a multimodal ensemble. This being the case, I propose that future work continue to adopt a multimodal framework. Despite the fact that my proposed five-use framework differentiates practices on the basis of the ways of conceptualising sound, these practices rely on several intertwined modes that add to the meaning. Presently, multimodality provides us with a wide range of methods applied to the analysis of a diversity of modes.[94] Multimodality is moreover a framework which considers each mode as one dimension of

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[94] Multimodal analysis (Jewitt 2011[2009]a-b-c; Kress and Van Leeuwen 2006[1996]); film discourse analysis (Wildfeuer 2014); and spatial discourse analysis (Ravelli and McMurtrie 2016).

an integrated experience in which meanings emerge from dynamic interaction between several modes. This being the case, it offers tools for cross modal exploration.

As for the use of social semiotics' framework to specifically analyse sound, I believe that it lacks further improvement. Indeed, only the work of Van Leeuwen can be mentioned to be fully dedicated to providing consistent analytical tools in the scope of social semiotics. In applying these tools, I have come to realise that much has to be improved on the subject and that the framework might benefit from other theories and methods. Indeed, due to sound's immateriality and representational and emotional versatility—as I have mentioned above, ethnomusicology has shown the cultural and site-specific nature of sound's meanings—the analysis of the sonic mode is complex. To provide effective analytical tools is, correspondingly, a major task to be achieved. To disclose sound's meanings, whichever its situational presentation, is per se a subject very much worth pursuing in the scope of ethnomusicology. In his article *Signs of Imagination, Identity, and Experience: a Peircian Semiotic Theory for Music*, Tomas Turino (1999, 221) clearly emphasises the importance for ethnomusicology to develop work in this field of inquiry:

> *Recent scholars of ethnomusicology have succeeded in illustrating the intimate interfaces of sound structures, social structures, and identity […]. It seems to me that the challenge for the next generation is to develop a theory of music in relation to what is usually called 'emotion'—our adequate gloss for that mammoth realm of human experience that falls outside language-based thinking and communication* (p.221).

Insights can also be gained about sound's meanings as deployed in the scope of sound-based multimodal museum exhibitions by adopting an ethnographic approach. This means conducting research closely with the sound-based multimodal museum exhibitions' curators and sound designers and composers; in another words, to closely observe the work of a curatorial team from the outset. In her book *Behind the Scenes at the Science Museum* (2002), Sharon Macdonald has interestingly reported her ethnographic tracking of the curatorial development of a particular exhibition. Macdonald's account is very insightful about how political agendas can easily interfere with the curators' initial purposes, influence the creation of public knowledge and

museumgoers' interpretations. The substance of an ethnography reflects the ethnographer, and demands a reflexive approach, i.e., "[…] confronting themselves politically, epistemologically, and aesthetically" (Stoller 1994, 363). This similarly serves the purpose of crafting multimodal texts to represent curatorial complexities.

The third direction for future work is to analyse the sonic experience of sound-based multimodal museum practices. This necessarily entails to turn the lens the other way around, thereby moving away from the object proper to conduct research with museumgoers. It is true that multimodality's frameworks and tools have developed on the grounds of research with users, but this does not substitute examining museumgoers. In keeping with that—and in addition to ethnomusicology's grounding in the ethnographic method—museum studies and practice have long been putting a major accent on the museumgoer. To analyse the sonic experience is thus a cornerstone in terms of future research directions from the perspectives of both music studies and museum studies. The analysis I developed in this thesis has provided me with insights for developing a future approach in a way which is more comprehensive and effective. The following questions are central for guiding future research. What characterises listening to sound-based multimodal museum exhibitions? Does it entail something specific or does it simply parallel extant musical practices? What kind of subjectivity is implicit? Can we speak of distinct "communities of interpretation" (Becker 2012[2010])? Are there specific habits of listening attached to each typology? More ambitiously, what is the "supra-individual" (Becker 2012[2010], 149) apparatus coordinating all these responses?

Sound in museums has not been examined yet. My reflections within the scope of this doctoral project, nonetheless, allow me to offer some suggestions. In keeping with that both the qualitative and quantitative approaches have benefits and drawbacks, a comprehensive examination must comprise both so that its downsides can be compensated (Becker 2012[2010]). I here draw on Becker (2012[2010], 132) who recommends aiming at "scientific universalism" and "humanistic particularity." To examine the experience of sound-based multimodal museum exhibitions entails considering a broad complex of relations intervening such as thought, behaviour, what music means, what is it for, how it should be perceived, and what are the acknowledged emotional and body responses (Becker 2012[2010]), 129). Analytical parameters to be considered when working with museumgoers should parallel those used for the examination of the exhibition proper so that relations can be established.

Major theoretical perspectives with a focus on the sonic can inform the inquiry and constitute conceptual tools for both representational and emotional analysis. I engage with the work of Augoyard and Torgue (2013) who introduced the concept of *sonic effect* (ibidem, 15)—sound being considered an "object of transformation" rather than an "object of description" (2011[2008]). In their book *Sonic Experience: A Guide to Everyday Sounds*, the authors provide a list of eighty-two descriptive sonic/auditory effects that can be very helpful to dialogue with museumgoers. The concepts integrate information about the objective physical space in which sounds resonate with cultural contexts and individual auditory experience. Other accounts coming from research examining the sonic dimension of video games can be mentioned in that they mainly rely on the notion of sonic experience. Roux-Girard (2014), for example, describes Perron et al.'s framework of *figures of interactivity* and *actional modalities*[95] which might not closely match the kind of interaction verified in sound-based multimodal museum exhibits, but can be inspirational in terms of developing similar frameworks for sound-based multimodal museum practices.

The focus on the experience as interaction and embodiment also entails determining the expectations and prior experiences of museumgoers. Indeed, I subscribe to Becker (2012[2010], 129) when she posits that "[…] modes of listening vary according to the kind of music being played, the expectations of the musical situation, and the kind of subjectivity that a particular culture has fostered in relation to musical events." Becker's work led me to interrogate: are there pre-given sets of expectations for museumgoers regarding sound-based multimodal museum exhibitions? Here, I also have to mention Feld (1984) who has drawn our attention to the fact that discourses about sound are a "metacommunication that frames the meanings experienced" (Beaster-Jones 2019, 37) by museumgoers.

I think that it is worth to capitalise on music cognition which has been investigating the psychological, physiological, and physical processes intervening in the experience of music. A prospective approach might be to collect neurofeedback and

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[95] Figures on interactivity are *spatial progression*, *confrontation*, and *social interaction*. As for the actional modalities, these unfold into *automation*, *trivial implementation*, *execution*, *resolution*, and *strategy*.

biofeedback data, namely by collecting measures of museumgoers' Emotional Valence and emotional arousal through EEG and Electro Dermal Activity, respectively.[96]

To close, I think that through the three research directions set above, it will be possible to develop a framework of listening practices characterising museumgoers' sonic experience of sound-based multimodal museum exhibitions, which is a major lacuna both in music studies and museum studies. I am here referring to a framework for understanding listening practices informed both by the cultural history of sound-based museum practices and museumgoers' attitudes, behaviors, values aspirations, identities, and discourses. This framework can be seen as a path toward thoroughly mapping the terrain and understanding the ways in which museumgoers are enculturated in the twenty-first century in relation to sound-based multimodal practices. In short, it allows us to join and expand ethnomusicological inquiry about listening practices at large, a task which I hope to pursue in the future.

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[96] Presently, there are companies working in the field that can collect EEG data in site by equipping museumgoers with validated medical headsets with 19 channels.

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APPENDIX A: THE GRAMMAR OF VISUAL DESIGN

Kress and van Leeuwen first introduced and proposed the *Grammar of Visual Design* in their eponymous book of 1996. The authors argue that similarly to what underlies verbal communication, visual communication is also shaped by power relations and interests, in short by social dynamics. Given this, visual semiotic analysis should better consubstantiate the examining of a complex that intertwines three layers: the ideational, the interactional, and the textual, as targeted by social semiotics frameworks (see chapter one). The grammar of visual design has been highly influential in the development of the majority of the approaches seeking to extend Halliday's systemic functional linguistic concepts and terms to visual modes such as those deploying images, filmic images, space, and gestures. By visual modes, I refer here to all those modes using space as their canvas rather than time which is the canvas of sound materials (i.e. sonic events, speech and music).

Despite containing the term "grammar" in its designation, the Grammar of Visual Design is not committed to any formal examination of grammatical rules but rather to grasp the ways in which several visual facets combine to form grammatical forms, i.e., "visual statements" (Kress and Leeuwen 2006[1996], 1). These visual statements describe the syntactic relations ongoing between the people, places and things depicted in the images, which thereby correspond to particular interpretations and experiencings of the world. Visual statements moreover encode forms of social interaction and relations of power. In keeping with linguistic communication, visual texts are also social resources for specific groups or cultures to express their mental picture of the world by means of "patterns of experience" (Halliday 2014[1985]).

In detail, the grammar of visual design observes, through borrowing Halliday's work, the meanings of visual texts by examining three layers, i.e., three metafunctions: representational (also called ideational)—the function of representing the world by means of patterns of experience; interactional (also called interpersonal)—the function of enacting particular social relations by means of patterns of interaction; and textual—the function that provides coherence to the text, both internally and with its environment, by means of particular spatial dispositions. I now proceed by detailing these metafunction analytical tools within the scope of the grammar of visual design. For the sake of succinctness, I do not thoroughly describe all of the tools of the Grammar of Visual Design but only those with analytical applications to the examination of my case study.

Representational (corresponding to Halliday's ideational) metafunction

The representational metafunction refers to "the meanings we make in order to engage with, understand and refer to our world" (Ravelli 2006, 7), i.e., the ways in which our experience of the world is visually encoded. Who are the participants in the visual statement and what are they engaged in? The ways in which humans experience and interpret the world translate into patterns of experience involving the objects and relationships (actions) linking them: patterns of experience are realized in verbal as well as in visual language through *participants* with the actions made between participants called *processes*, and with *circumstances* associated to the processes.

Participants

The fact the grammar of visual design applies the term *participants* to designate objects heralds its relational understanding of meaning. More specifically, this distinguishes between *interactive participants*, referring to the producers underlying a text, i.e., the builders, and its viewers/readers, and the *represented participants*, referring to the people, places and things (including abstract "things") only depicted in the text. In general, these participants include both the doer and the receiver of the action and are identified in visual formats of communication by two manners: (1) following the rationales of the psychology of perception by identifying the outstanding volumes and masses in the images; (2) following Halliday's systemic functional linguistics by identifying the participants who/which realise semantic functions, that is who/which play the most crucial roles (such as *actor*, *goal*, *recipient*, *carrier*, and *attribute*, which I shall detail further below). Ascertaining which role a particular participant is playing requires identifying the process in which he/she/it is involved. The overall participant geometrical shapes have also developed their own semantic significance over time: circles, squares and triangles, for example, have long been highly praised and acknowledged as holding the ability to elicit emotions.

Processes

Processes refer to the social processes (actions) in which the participants are involved. According to Bustam (2011), the verbal grammar of experience unfolds into six different semiotic patterns each of which deploy specific social processes—material,

mental, relational, verbal, existential, and behavioural[97] —realized by a suitable verb. The visual grammar of experience, in turn, distinguishes between two processes: (1) narrative, which implies the existence of a vector linking the participants and (2) conceptual or classificatory/analytical in which there is a depictive presentation and never a vectorial relationship between participants. Narrative processes take place by means of vectors (explicit or not) representing the verbs connecting the participants (*actor* and *goal* or *recipient*). The *actor* is the performer of the action and the *goal* or *recipient* the receiver of that action. Conceptual or classificatory/analytical structures, in general more static, are realised by means of a larger participant representing the whole, the *carrier*, and several other participants, called *attributes*, fitting together in relation to the *carrier*. While it is possible to establish correspondence between the verbal and the visual languages, not all the meanings depicted visually may be depicted verbally and *vice versa*.

Circumstances

In visual grammar, the circumstances encapsulate the other participants relating to the main participants in weaker ways than the relationships established by vectors and depiction. Although not similarly significant, one proportion of the information would nonetheless be lost were they deleted. Circumstances unfold into *Locative Circumstances*, *Circumstances of Means*, and *Circumstances of Accompaniment*. Locative circumstances refer to the background encircling the main participants and the relative positions between them. Are the foregrounded participants and their background setting attributed the same prominence? Does one obscure the other? Are there contrasts in the details, the gradients of the colours, of the exposition and similar aspects? Kress (2006[1996]) furthermore notes that settings ultimately constitute embedded conceptual or analytical processes that have already been presented, which will be detailed hereupon.

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[97] Material processes are physical actions in the real world; mental processes encode meanings of feeling and thinking; verbal processes are those for saying and indicating; relational processes constitute those of being and having; behavioural processes embody psychological and physiological behaviours; and existential processes represent experience by positing that "there is something." An additional explanation distinguishing between relational and existential clauses is worth mentioning because existential clauses typically contain the verb "to be" and so may resemble relational clauses. What distinguishes existential clauses is the fact that an empty "there" always introduces them (in other words, an assertive there). There is also only one participant in the clause whereas relational clauses are never prefaced with "there is/are" and must include at least two participants.

Circumstances of means refer to the visual aspects functioning as tools for the main participants and that feature no connecting vector and, as such, not realising any transitional process.

Lastly, *circumstances of accompaniment* refer to situations in which there are two distinct participants in the picture but with no connecting vector, thereby resembling an analytical process providing descriptive information.

As a final summary, Kress and van Leeuwen (2006[1996]) provide a table charting the terms deployed to refer to how images represent the world by means of narrative processes and conceptual processes.

(1) Narrative processes

In visual language, a narrative process is established by a vector connecting two participants. The vector stands for a verb expressing an action one participant is performing on the other or an action that both are mutually performing. Typically, this vector is a strong and oblique line, explicit or otherwise, or with other clearly directed lines—lines lacking in any directionality themselves form a specific case of analytical processes. These narrative processes unfold into (1.1.) Action Processes; (1.2.) Reactional Processes; (1.3.) Speech Processes and Mental Processes; (1.4.) Conversion Processes; and (1.5.) Conversion Symbolism.

(1.1.) Action Processes

Action processes run parallel with the material processes in the verbal grammar of experience. Actions can be transactional, when there is a *goal* (the participant at whom or at which the vector is directed or the action is aimed, and to whom or which the action is done), or non-transactional, when there is only one participant, usually the *actor*. Transactional actions are analogous to transitive verbs in the verbal grammar of experience and non-transactional actions analogous to intransitive verbs. In cases where there is no actor, but only the goal, the grammar of visual design entitles these as events.

(1.2.) Reactional Processes

Reactional processes entail a participant/ reactor (necessarily a human participant) looking at or observing some ongoing action performed by another participant. In detail, the reactor's eyeline forms a vector with the phenomenon in which the other participant is participating. The process performed by this latter participant is thus the phenomenon of a reactional structure. Reactors can react diversely and this can help in eliciting certain moods or intellectual dispositions in the viewers. Reactions become non-transitional

when there is no phenomenon in which the observed participant is involved. In this case, the viewer is left to imagine what he/she wants about the participant.

(1.3.) Speech Processes and Mental Processes

In Halliday's grammar of experience, speech processes are those of saying and indicating while mental processes encode meanings of feeling and thinking. However, while in the verbal grammar of experience these are realised by specific verbs, in the visual language they are realised by means of oblique vectors connecting written speeches and thoughts to their cartoon characters. These systems of representation have been customised for several other communicative situations. According to Kress and van Leeuwen (2006[1996], 77), "[…] dialogue balloons always quote" and this led me to realise how museums have been eager to adopt mainly verbal processes by placing quotes in a sort of dialogue balloon prominently positioned on the walls dedicated to text panels.

(2) Conceptual processes

Conceptual processes represent participants in terms of being by positing their essence, i.e., their place, class, structure or meaning in a static order before unfolding into *classificational* (kind of), *analytical* (part of) and *symbolic* processes. According to the Grammar of Visual Design, conceptual processes display no vector connecting participants and the grammatical structure is rather realised by means of a presentation depicting a larger participant compounded by smaller parts/participants.

Classificational processes engage in a taxonomical relationship between participants in which one is *subordinate* with respect to a *superordinate*, i.e., the first is a kind of the latter. Commonly, classificational processes unfold into *covert* and *overt taxonomies* and seek to convey stable relations between participants functioning as a system. *Covert taxonomies* are represented by formal diagrams deploying the subordinates against a plain and neutral background in a symmetrical visual structure (more details will subsequently be added to the modality) such as for conveying an understanding of them as part of the same class. Often, the subordinates are given the same size and the same orientation, so they are read as members of the same class. *Overt taxonomies*, in turn, deploy participants in a chained relationship by means of a levelled tree with participants depicted at the same level belonging to the same kind. Such representations thus portray hierarchical structures in which the overarching participant is connoted with a general idea or concept carrying power. Boxes and their linking

branches can vary from straighter to more curved and thereby connoting more *mechanical* and *technological* or more *organic* and *natural* stances.

Analytical processes represent participants as components of a part-whole structure and entail two types of participants, a *carrier* standing for the whole and any number of *possessive attributes* standing for the parts. Typically, analytical processes lack either a vector conveying a narrative process, a compositional symmetry or a tree structure enacting classificational processes and that identify the typical features of symbolic processes. Examples might include images that clearly display parts of an outfit or maps in which different regions are represented as parts of a whole country. The modality used to represent the attributes, which is further explained below, greatly contributes to whether or not an attribute gets considered as relevant in the analysis. Analytical processes unfold into *unstructured* and *structured*. *Unstructured analytical processes* consist of those processes in which the carrier is not represented. The possessive attributes are shown and can vary from one to many but the carrier is abstract or unavailable to be shown in the whole and so is absent. In *structured analytical processes*, in turn, both carrier and possessive attributes are shown. These unfold into the *temporal* and *spatial* dimensions. *Temporal analytical processes* refer to visual arrangements in which the meaning of the text is brought together by a temporal line that usually seeks to bestow history on a certain set of attributes. In other words, the carrier is time instead of an object and with the possessive attributes thus becoming points in time. *Spatial analytical processes* portray the visual arrangements in which the representation of their carrier and its possessive attributes is disposed throughout space. Several dispositions in space are feasible and serve to depict a range of different meanings. In detail, *spatial structures* commonly unfold into *exhaustive and inclusive*, *conjoined and compounded exhaustive*, *topographical and topological*, *dimensional and quantitative topographies*, and *spatio-temporal analytical structures*, that I will now detail.

Exhaustive analytical processes are undertaken through visual structures which convey the idea that all the possessive attributes of a carrier are detailed. This is a very strong visual depiction as it clearly suggests that all possessive attributes of a given carrier are entirely revealed even when they are not. *Inclusive analytical processes* refer to more plural visual representations in which the possessive attributes featuring in the depiction can extend beyond those contained within the carrier, i.e. those included, but also those

excluded and those partially included/excluded.[98] Inclusive structures can furthermore be recursive, i.e. an attribute can simultaneously be the carrier of an embedded process.

Sometimes, narrative and classificational systems may be blurred leading to a certain ambiguity in interpretation or to the system providing two types of information. Within this scope, I should reference how classificational processes can occasionally be read as actional processes (instead of subordinate relationships) in the visual structures supporting them, i.e., genealogies and evolutionary trees, may also suggest verbs such as generates, yields, evolves into, and so forth. This results in ambiguity between dynamic and static processes. Kress and van Leewuen (2006[1996], 83) consider such occasions raise questions such as "Is the dynamic in reality the instantiation or the enactment of an underlying system?" or "Is the static the systematization and objectification of a dynamic and ever-changing reality?" Another example results from rotating a classificational diagram through ninety degrees to thereby convert it into a flowchart enacting narrative processes. This new presentation, nonetheless, still retains its original hierarchical representation of the phenomena. Such examples might be described as the visual arrangement attempting to combine two perspectives. *Conjoined exhaustive structures* dispose the possessive attributes of a given carrier in a manner which conveys their togetherness. In detail, the idea of the whole is conveyed by lines (lacking directionality thereby not fulfilling the role of vectors) connecting the possessive attributes. *Compounded analytical structures* applies the possessive attributes of a given carrier in a manner which both visually conveys their separate identities and wholeness (a good example is that of pie charts in which the representation of the slices in the drawing identifies their intrinsic togetherness). *Topographical analytical structures* aim to accurately display how the possessive attributes of a carrier interconnect spatially and with their *topological* counterparts seek to represent the rationale interconnecting the

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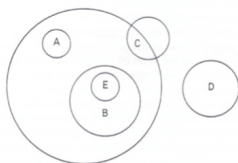
Inclusive analytical structure (Kress and Leeuwen 2006[1996], 96)

participants (possessive attributes). *Dimensional* and *quantitative topography structures* refer to the visual structures in which either the dimensions of the carrier or its possessive attributes report its specific quantity. Usually, there is not one but several possessive attributes that allow viewers to interpret quantity in relation to the relative dimension of the several participants. Finally, analytical processes may assume the features of *spatio-temporal structures* that combine a structure in which quantity, dimensions and the relationships described above can be depicted in the same visual representation but in accordance with their place in time.

A final kind of analytical processes is that of *symbolical processes*. Symbolic processes encapsulate what a given participant is or means. Several features lead us to just how a given human participant, for example, is endorsed with symbolic value which can be *symbolic attributive* or *symbolic suggestive*: they are foregrounded, they do not perform an action but rather pose for the viewer, i.e., they do not perform a narrative gesture and are generally connoted with symbolic values. In symbolic processes, a single human is represented. What sets this apart from considering it an analytical process stems from the very fact that the detail is dismissed in order to capture a general essence. The specific essence of the participant is usually understood to emerge from within him/her/it. Symbolic attributive processes in turn refer to representations in which the symbolic meaning of the participant is depicted as being externally conferred.

Interactional (corresponding to Halliday's interpersonal) metafunction

The interactional metafunction spans the meanings articulated by the nature of the relationships between producer and viewer and that are encoded in the image. In fact, as the producer and the viewer never meet, their relationship is articulated by the image represented and its features, in actual terms, the point of contact between them. The interactional analytical metafunction is what most greatly distinguishes Systemic Functional analytical frameworks from other more conventional approaches in that, in considering the producer, the viewer, and the image/text between them, this carries out a 3D human analysis. Specifically, the grammar of visual design considers two types of participants, the *represented*, that is, those depicted in the image, and the *interactive*, that is, those communicating through the image, and the three kinds of relationships they articulate: the relationships between the participants represented in the image, the relationships between producer and viewer, and the relationships developed between viewers as a result of having interacted with the image. The image alone allows us to

conduct such analysis in that it invariably encodes an implied author and an implied viewer. At the same time, for the image to be effective, it is important that it shares elements common both to the producer and the receptor. These relationships, nonetheless, are not enacted but rather represented in images. And by being represented rather than enacted, viewers take part in them imaginarily. When viewers do not identify with representation, thus, when there is no knowledge shared between viewers and producers, viewers develop no imaginary relationship. Images show plenty of aspects speaking for the author and for the viewer he/she imagined when building it. Images can actually tell who the producer is and which position about reality he/she is conveying: Which kind of social interaction is the producer allowing? How close can viewers be? Is the producer authoritative or conversely allowing viewers to disagree? Interactional analytical tools developed with the purpose of providing answers to these kinds of questions. They unfold into *gaze*, *size of the frame*, *perspective*, and *narrativization*, as I now separately describe.

(1) Gaze

In visual terms, *gaze* is the strategy responsible for realizing contact. The Grammar of Visual Design distinguishes two types of gaze strategies, *demand* and *offer*. *Demand*, a term borrowed from Halliday's framework (Kress and Leeuwen 2006[1996], 118), refers to an image demanding something from the viewer. *Demand* is achieved when represented participants in the image look directly to viewers thereby prompting these to establish an imaginary relationship with them. *Offer*, in turn, is when "[…] pictures address us indirectly" (Kress and Leeuwen 2006[1996], 119) prompting the viewer to look at the represented participant. Alternatively expressed, the represented participants are depicted as offered up to viewers for their contemplation and as if they do not know they are being looked at. The depictions thereby provided primarily generate information, not directly enacted, but in the form of representation.

(2) Size of the frame

The distance at which the image captures the represented participants creates a sense ranging from intimacy to impersonality for the viewer, i.e., different social distances. According to the Grammar of Visual Design, these unfold into: *close-up*, i.e., a close shot showing the head and shoulders of the represented participant; *extreme close-up*, i.e., closer than close-up; *medium close shot*, showing the participant down to his/her waist; *medium shot*, showing the participant at roughly his/her knees; *medium long shot*,

depicting the whole figure; the *long shot*, portraying a figure occupying half the weight of the frame; and the *very long shot*, referring to whatever extends beyond this. Different imaginary relationships are incited by each of the aforementioned shots as well as each visual genre having developed its own conventional patterns of distance (Kress and Leeuwen 2006[1996], 126). Similar distinctions may furthermore be applied to landscapes such as to imaginarily make viewers locate or not within the landscape.

(3) Perspective

According to the grammar of visual design, the position from which an image is captured produces attitudinal meanings. This position substantiates across both the horizontal and the vertical angles, with each producing their own attitudinal meanings in that they convey the image through a certain subjective point of view. Ultimately, this perspective resembles the building of a specific "window on the world" (Kress and Leeuwen 2006[1996]).

The horizontal angle is determined by making the capturing camera move across the horizontal plane. In detail, the horizontal angle results from the relationship between two frontal planes, that of the image producer and that of the participants represented in the image. When the two planes are parallel, the producer is capturing a *frontal point of view* of the represented participants. In terms of meaning, a frontal point of view prompts the viewer to adopt an attitude of *involvement* (Kress and Leeuwen 2006[1996], 136). When the two planes form an angle, the producer is capturing the participants by means of an *oblique point of view*. In terms of meaning, the oblique point of view prompts the viewer to adopt an attitude of *detachment* towards them (ibidem, p. 136), in other words, a reflexive approach.

The vertical angle is determined by making the capturing camera move in high. Moves in high connotes a specific relationship of power between the represented participant or object and the viewer. Three spots are typically applied: *high angle*, which captures the participant from above and so makes the represented participants seem very small with the effect of attributing the viewer with power over the represented participants; *eye level*, which tends to represent the participant at its own height, prompts a relationship of equality between the represented participant and viewer; and *low angle*, which captures the participant from below and so makes the represented participant look bigger and more impressive, conveys the effect of attributing the representation with

power over viewers. In short, *high angle*, *eye level*, and *low angle* all convey specific and subjective points of view.

Certain viewpoints, such as *frontal angle*, *perpendicular top-down angle*, and *cross-section,* are deployed in order to assign objective meanings to the represented participants. In detail, *frontal angle* — considered the angle of maximum involvement and oriented to action — or the perpendicular top-down angle — structures the conveying of objective theoretical knowledge through observing the participant from above and so portraying it as objective, as if handed down by God — thus neutralising distortions brought about by perspective (when seen in perspective, cubes are represented as if their faces are not all equal). Through these angles, "[…] perspective and its attitudinizing effect" (Kress and Leeuwen 2006[1996], 144) is dismissed. *Cross-section* provides a strategy almost exclusively used in diagrams that draw on displaying additional information for the image to reach beyond that displayed at the surface.

(4) Modality

In brief, modality refers to the extent to which an image is or is not credible. This undergoes assessment according to a group of markers such as *colour saturation*, *colour differentiation*, *colour modulation*, *contextualization*, *representation*, *depth*, *illumination*, and *brightness*. Visual representations are identified as displaying high or low modality in relation to the extent to which they are more or less credible to a given social group. As such, the more these markers resemble those of a given reality for a given social group, the greater the extent the readers take the message for granted and accept its contents. These modality markers describe the following aspects:

Colour saturation assesses the volume of colour in use and ranges from black and white to full colour saturation. *Colour differentiation* incorporates the diversity of colours present and ranges from monochrome to a great diversity of colours. *Colour modulation* considers the extent to which colours are applied in many different shades and correspondingly ranges from unmodulated colour to fully modulated colour. *Contextualization* gauges the extent to which the images include contextual backgrounds that typically range from no background to a detailed and well-articulated setting. *Representation* assesses the extent to which images feature pictorial detail or rather maximum abstraction. *Depth* studies the level to which the angle that the image is captured from does or does not allow real representation. According to the Grammar of Visual Design, the central perspective depicts the highest modality (Kress and Leeuwen

2006[1996], 162). *Illumination* reflects the level of the light used and ranges from shade to fullest light. Finally, *brightness* in an image evaluates the difference in colour between the darkest and the lightest sections. When the colours are similar in both these sections, for instance dark grey and lighter grey, the image has low brightness.

I should also refer to how the aforementioned markers are not subject to straightforward interpretation, i.e., as if lower or higher modality results directly from a lower or higher rank. Whereas, for example, the absence of one of these markers can result in "less than real" and so lower modality, excesses can similarly result in the same lower modality in that this creates a "more than real" (Kress and Leeuwen 2006[1996], 163) image. Additionally, the high or low modality of a given image emerges from the interplay of all the markers within the scope of a certain *coding orientation*,[99] i.e., a given standard of abstract principals developed by a social group guiding and shaping what counts as real in an image. The Grammar of Visual Design (Kress and Leeuwen 2006[1996]) distinguishes among the following four coding orientations: *naturalistic*, guided by the common sense shared by virtually all members of a culture despite their education or social class; *technological*, aimed at the effective communication of objective contents; *sensorial*, guided by the principle of sensorial pleasure and in which colour, given it conveys affective meanings, is given high modality; and *abstract*, a practice mainly dominated by the elites in which reality is reduced to its essential traces. Baldry and Thibault (2010[2006]), in turn, set out three code orientations for guiding visual semiosis, hence, *naturalistic*, *sensory/sensual*, and *hyperreal*, with the latter referring to exaggerations in the reality represented.

The aforementioned framework of coding orientation implies that different standards result in different prints of high and low modality thereby demonstrating how modality is not pre-determined but rather social in nature.

Compositional (corresponding to Halliday's textual) metafunction

The compositional metafunction relates to the meanings articulated by certain organizations of representational and interactional parameters. In assigning internal coherence and ordering to the image, this is textual. Composition unfolds into three integration codes: *information value*, referring to the meanings attached to the positions

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[99] A term used by Kress and van Leeuwen (2006[1996], 165) that draws on that of Bernstein (1981) by referring to different realities, i.e., to different coding orientations.

in which the participants are depicted (left, right, top, bottom, centre, margin), *salience*, spanning the meanings attached to the position of participants and interactive dimensions in depth, i.e., in the foreground or in the background, and *framing*, including those meanings attached to the depiction, or otherwise, of internal separations and frames disconnecting or connecting elements. According to Kress and Leeuwen (2006[1996], 177), composition deals with the spatial integration of all the elements to an image and applies to spatial compositions in which all the components either simultaneously or rhythmically coexist in compositions in which the components unfold into time. In cases in which both codes are applicable, rhythm assumes the most integrative principle.

(1) Information Value

In terms of *information value*, each position assumed by elements within an image carries its own meanings in relation to a specific cultural context. Typically, for the visual semiotics of Western cultures, elements positioned on the left side of an imaginary horizontal image axis are attributed the meaning of *given*, i.e., something already known by the viewer, and elements positioned on the right hand side of the same horizontal axis are attributed the meaning of *new*, i.e., a novelty to which viewers should pay attention. New is moreover often attributed the meaning of something that eligible to be contested or which is at issue/stake. According to Kress and van Leeuwen (2006[1996], 185) "in ongoing texts, each *New* can, in turn, become *Given* for the next *New*" (my emphasis). As regards elements positioned along an imaginary vertical axis, the Grammar of Visual Design distinguishes between *top* and *bottom*. Whereas the information value of elements positioned in the *top* is usually that of ideal and reserved for general and more emotive information, the *bottom* is attributed the meaning of real, usually reserved for displaying more concrete and practical information.

As to the *information value* of centre and margin, for a participant to be in the centre endows this element with greater power in relation to other elements depicted. Viewers should look attentively to this element being and with every other element gravitating around it. Furthermore, there is no sense of polarization as when participants are placed over on the left or on the right with images of this remit tending to be symmetrical rather than polarized.

(2) Salience

The next integration code for consideration is *salience*. This reflects the extent to which an element is prominent in relation to the others. In sum, salience hierarchizes the elements. A given participant might, for instance, be on the margins but still more salient than another depicted in the centre. Several aspects can endow salience on an element, including "size, sharpness of focus, tonal contrast, colour contrasts, placement in the visual field, perspective, and also quite specific cultural factors, such as the appearance of a human figure or a potent cultural symbol" (Kress and Leeuwen 2006[1996], 202). Perspective also plays a role in the relative salience of several elements.

(3) Framing

Finally, *framing*, the third integration code, conveys the extent to which the elements are depicted together and so connected or rather disconnected by means of frames or dividing lines. These lines can be either explicit or implicit, such as when enmeshed in other depicted elements. The clear demarcation of objects also functions as framing and in opposition to subtle colour transitions.

Concepts from the chapter *Semiotics and Iconography* (Leeuwen 2001) are also deployed, namely *connotation* and *denotation*.

The *Grammar of Visual Design* was deployed to analyse the visual elements (filmic images) comprising the installation-work *The Visitors*, with its outputs falling into the spheres of the representational and the experiential (mainly sensorial).

APPENDIX B: DISCOURSE ANALYSIS

My analysis of the song lyrics is guided by *genre* and *register*. Whereas *genre* strives to aggregate the texts into common formally and culturally organized structures, *register* aims at differentiating them by stressing their situational specificity.

The notion of *genre* identifies the context of culture and is well established in systemic-functional linguistics, particularly the work of Eggins and Martin (1997) in which genres are culturally distinctive texts types. Drawing on this work, the Australian Louise Ravelli (1996; 2006; 2007) provides a specific framework for *genre* within the domain of museum exhibitions. The author proposes this as a fundamental tool not only for writing effective wall-texts but also for analysing and interpreting them. My view coincides with this in that by placing an emphasis on a functional understanding of language, i.e., identifying the social purpose of the text and its support structure (Ravelli 2007, 300), *genre* can offer more in-depth explanations of the language and meaning of communicative texts. Moreover, post-modern scientific knowledge has clearly demonstrated that it is highly appropriate to adopt a model of socially contextualized communication as opposed to a more positivistic emphasis on context or form (Ravelli 2007, 302). Eggins and Martin (1997, 233) also state it accurately: "It is significant that we identified not just one, but several, clusters of patterns that differentiated the texts. Similarly, we identified not just one, but several contextual dimensions that had 'got into' the texts."

Ravelli understands textual genre as the identification of a relatively stable shape or available convention that resides in all writing, endowing it with body and structuring social occasions. The usage of a particular genre is determined by social practice, which requires specific different kinds of discourse. Furthermore, genre is an invisible operative agent dominated by the producer and the reader to ensure their convergence within any given textual object.

Identifying the genre(s) embodying a set of wall texts for an exhibition provides information about the institution's conceptual standing in the country's cultural panorama, the social function of the text, i.e., argue, explain, discuss and so on, and expresses the way the museum relates to the objects and its visitors. Although there is no real right or wrong per se, as each choice ultimately fosters meaning, the exercise of identifying genres is fundamental to grasping the meanings therein conveyed. In essence, whenever readers recognize the generic framework being used, they will attend to the social purpose and meaning of that text within a specific type of relationship—conventional to a greater or

lesser extent. This is not totally unforeseen as we may gain an idea of what is coming next when talking to someone as if making predictions (Halliday 2014[1985]).

In the context of museum exhibition texts, there are a number of common genres. The *report*, the *explanation*, the *recount*, the *procedure*, the *exposition*, and the *discussion* (Ferguson et al. 1995) are the most common deployed hitherto as templates for constructing meaning. Each holds its own identifiable purpose, a structure to support that purpose, and a propensity to enable distinctive social relationships with the audience as Ferguson et al. have identified.[100] Despite the installation-work *The Visitors* being exhibited in a museum gallery, I argue that the song's lyrics genre should be analysed by drawing on the framework of the literary genres, in keeping with it being a poem by Ásdis Sif Gunnarsdóttir. Textual conventions proved the three major literary genres to be poetry, drama and fictional prose (Biber and Conrad 2009, 19) with poetry having the physical arrangement of sentences as part of the creative effect. Indeed, Biber and Conrad have stated that "meaning relationships in poetry are often construed from the physical juxtaposition of words and lines, rather than through the use of complete lines" (p. 20-21). The authors moreover note that literary's genres varies according to aesthetic preferences rather than according to functional purposes, as it is the case of museum genres.

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[100] (1) Report genre—the function of the report genre is describing the way things are. Report genres can therefore serve to describe a whole range of natural, cultural and social phenomena. This begins with a general classification which describes the object/article and may include descriptions of the component parts and their functions, qualities, habits or behaviours, and uses; (2) Explanation genre—the function of the explanation genre is to explain processes, or why things are as they are. The begins with a general statement to position the reader followed by a sequenced explanation. This accounts for the steps or processes involved in why or how something occurs; (3) Recount genre—the function of the recount genre is to retell events whether for purposes of informing or entertaining. This is generally structured into three sections: beginning with a short orientation to position the reader; the events are then listed, usually in a temporal sequence; the recount genre may also finish with a re-orientation; (4) Procedure genre—the function of the procedure genre involves describing how something is accomplished through a sequence of actions or steps. This contains two distinct sections: beginning by describing the goal; this is followed by a series of steps oriented towards achieving that goal; (5) Exposition genre—the exposition genre function puts forward a point of view or argument. This spans three distinct sections: beginning by putting forward the writer's point of view and previewing the arguments to be used; the points of the argument are then listed and elaborated on, usually in a logical sequence; the exposition genre may finish with a reiteration of the original point of view; (6) Discussion genre—the discussion genre function incorporates presenting information about and arguments for both sides in a topical issue before concluding with a recommendation based on the weight of evidence. Museum texts may not necessarily make such recommendations, rather leaving readers to make up their own minds. This applies three sections: beginning with a general statement to position the reader, and a preview of that to be covered; the arguments for and against are then listed and elaborated on or, whenever the discussion is very complex, statements of various viewpoints are listed; the discussion genre concludes with a summary of the arguments and a recommendation for a course of action.

The other analytical concept is that of *register*. Register refers to the more specific context of situation. In practice, focusing on register means examining three layers separately despite their intertwined nature: the ideational, interactional, and textual frameworks, constructing a specific type of *field, tenor*, and *mode* respectively.

The *field* of discourse or the subject matter of the text, the system of ideational meaning, is about how we experience and interpret the world. Texts always portray, interpret and construct a reality by representing objects, people, places and abstract concepts: it "encompasses the meanings we make in order to engage with, understand and refer to our world" (Ravelli 2006, 7).

The unity of representation that we establish in construing our world of experience and understanding is the clause. Who are the participants and what are they engaged in? Representation is built up through the participants, the actions made by participants or the processes, and the circumstances associated with the process. Participants include both the doer of the process and the receiver of the action. According to Bustam (2011) as regards actions, this grammar of experience divides the world into six different semiotic spaces each of which bears its own prototypical social processes—material, mental, relational, verbal, existential and behavioral[101]—conveyed through verbs and verbal groups. In turn, the circumstances are adverbial groups or prepositional phrases detailing where, when, and how something has occurred.

Tenor is the second concept considered. The tenor of discourse embodies the way in which texts enable and motivate visitors to participate. As Ravelli (2006, 71) notably states, "texts are social products, created and understood through processes of interaction." Indeed, the choices in communication are not only about content in the representational sense but also convey interactional meanings. Interaction with visitors is one of the greatest contemporary challenges for Museum Studies: at a time when the needs of visitors and communities are paramount, this dimension has become crucial.

The tenor depends on two variables: the relative power of the interactants and the degree of social distance or proximity between them (Ravelli 2006). Texts can enable different relationships shaped by different participant roles: firstly, a more formal relationship oriented from expert to novice or from expert to learner and in which the

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[101] Material processes are processes of physical actions in real world; mental processes encode meaning of feeling and thinking; verbal processes are that of saying and indicating; relational processes are that of being; behavioral processes are that of psychological and physiological behaviour; and existential processes represent experience by positing that "there is something."

visitor is expected to receive knowledge as in the old modernist museums; secondly, from expert to expert or learner to learner enabling visitors to reconceptualize the role of the institution. Correspondingly, interactional variables suit different relations of power and distance (Ravelli 1996, 375). Additionally, each instance of communication has an interactional meaning that conveys the *speaking role*[102] of the institution. As museums write these texts, they decide on visitor roles and their behavioral potential: when texts ascribe higher status to the museum they keep visitors at a distance; while more flexibility encourages intimacy, which means allowing visitors to receive or to construct knowledge.

According to Louise Ravelli (2006), in western culture it is particularly important to distinguish between objectivity and subjectivity to achieve intimacy or distance: with objectivity highly considered and acknowledged as scientific and with widespread acceptance that this should be provided by museums; conversely, subjectivity has been deemed unscientific and thus not distinctive or appropriate for a museum institution. Traditionally, any lack of certainty is also not well received. As the social sciences have demonstrated objectivity is not actually possible, linguistics for museum studies have increasingly encouraged the use of personal linguistic devices to represent subjectivity: with expressions such as "it is believed that" potentially obtaining the desirable subjectivity.

Tenor also refers to the stance conveyed by the text, i.e., was the text written to appear objective or subjective. I intentionally apply the word "appear" because I am in full accord with the idea that all texts are subjective, whether implicitly or explicitly, first and foremost because of the content selected. What is accepted as an objective text is generally a text in which subjectivity has been hidden by certain linguistic devices, such as recurrent usage of the passive voice and nominalizations so as to remove human agency. In addition, when an institutional text is written in the third person, its voice gains authority and the content passes uncontested. Conversely, one can use devices to highlight the subjectivity at stake: by encoding a personal point of view to include evaluation and attitude, whether affective, judgemental or appreciative; and by introducing a speaker's angle on the facts by means of modal verbs and modal adjuncts such as may, should, sometimes (Ravelli 2006, 87-94).

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[102] Term coined by Louise Ravelli (2006, 70).

Finally, the *mode* of discourse describes the text in terms of its accessibility by placing it within a more written or spoken style, i.e. more formal or informal and more impersonal or personal, and focusing on its lexical density: texts closer to the spoken mode are said to be easy reading and therefore more inclusive; conversely, texts closer to the written mode are said to be denser, more highly informative and not entirely suitable for visitors experiencing an exhibition within the recent trends in museum studies. In terms of lexical density, any persistent use of nominalizations, complex nominal groups, and words with which visitors are not familiarized acts to create distance. Nevertheless, common sense is required: as long as they are not used extensively, nominalizations and nominal groups are still important resources for written texts in museums as they enable technical views on particular subjects and fulfil the pre-established desire of visitors to attain knowledge in museums.

APPENDIX C: THE SOCIAL SEMIOTICS OF SOUND

The examination of *The Visitors*' music layer constitutes a crucial analytical endeavour. In fact, although sound interplays with images and both are truly significant, the music plays a vivid layer in the whole work for it deserves detailed attention. Ragnar Kjartansson moreover mentioned in a source interview (see footnote 50) the installation-work on the whole as speaking for his understanding of what it means to make music with a group of friends. To further the representational analytical goals, my analysis also entails care over the larger aim of grasping which underlying concepts of *music* the installation-work conveys. Such analytical aims link to questions around how people experience music representationally, hence, to the specific field of inquiry into the sense making capacity of music.[103] According to Salgar (2016, 3), for instance, music is truly significant: "Music is economically [socially, religiously, political] relevant. But nothing of this would be important if it were not for the fact that music signifies." The social semiotics of sound, nonetheless, has not proved especially productive in grasping music's representational meanings in *The Visitors* with this dimension instead explored in the interviews.

I furthermore seek to analyse the ways in which the sonic layer returns meaning in experiential terms (corresponding to the interactional metafunction in social semiotic frameworks), i.e., how do museumgoers experience the sonic layer in emotional and sensorial terms; a question for which I believe the Social Semiotics of Sound yields more interesting outcomes. In interactional terms, attention moreover turns to how the installation-work facilitates both identitary work, by assisting relationships with oneself, and social work, by adding to relations with others and, more broadly, by fostering a sense of community and social participation.

According to Leeuwen (1999, 6), the semiotics of sound is "[…] an annotated catalogue of the sound treasures Western culture has collected over the years, together with the possible uses to which they might be put, as gleaned from the past and present experience." In detail, Leeuwen (1999, 9) unpacks sound into six musical articulatory parameters, which he argues, are common ground to speech, music and other sounds before describing their uses in terms of meaning potential by following a systemic functional approach, i.e., by drawing on the systematicity of discourse analysis and on its

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[103] For Reybrouck and Maeder (2017), the concept of *sense-making* markedly differs from the concepts of *signification* and *meaning* in that the former implies the active involvement of a person and the latter points to the idea that meanings are immanent to the object.

focus on the social, cultural and historical contexts of usage. The articulatory parameters thus become the following: *perspective and social distance*; *time and rhythm*; *the interaction of voices*; *melody*; *voice quality and timbre*; and *modality*.

Van Leeuwen's articulatory parameters are set towards the experiential meaning potential of sound semiotic resources grounded in the experiences of the human body and in their provenance[104] achieved by intertextuality. According to Leeuwen's Semiotics of Sound (1999, 8) as well as for all analytical methodologies applied to grasp the other modes in the case study (the grammar of visual design and discourse analysis), the role of the underlying context is distinctive in that, depending on sound's underlying social, cultural and historical settings, sonic semiotic choices become "mandatory, conventional, or traditional," an understanding able to can provide fruitful insights in terms of the meaning making potential of sound resources.

In what follows, I shall describe each sonic articulatory parameter as developed by Leeuwen in his book *Speech, Music, Sound* (1999) in terms of its meaning making potential insomuch as each constitutes a proficient analytical tool for analysing the music layers of *The Visitors*.

(1) Perspective and Social Distance

Perspective and *social distance* examine the relationships between the sound being presented and the person listening in terms of distance vs. proximity.

Starting with *perspective*, similarly with the *Grammar of Visual Design*'s homonym concept, this refers to the relative distance at which a listener receives sonic events. This applies not to single sounds but to the relative position of the listener to concurrent sounds. In detail, *perspective* is "realized by the relative loudness of the simultaneous sounds" (Leeuwen 1999, 23) and distinguishes sounds located across three plans, the *foreground*, the *middle ground*, and the *background*, with each prompting a specific meaningful relationship with the listener. In his book *The Soundscape, Our Sonic Environment and the Tuning of the World*, Murray Schafer (1994[1977]) first introduced the notion of perspective and several terminologies have since developed to designate sonic elements placed in the foreground, middle ground or background. Van Leeuwen's

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[104] Provenance is here understood as familiarity with the origins of a signifier and its related associations.

terminology draws on that of Schafer and consists of a sonic element in the foreground referred to as *figure*, an element in the middle ground to be called *ground*, and another in the background to be called *field*.

Whereas *perspective* measures the relative proximity of the listener to a given sonic element and always in relation to the position of concurrent sounds, *social distance*, in turn, measures the same order by focusing on the sound itself. This is not dependent on the actual distance from the listener to the sound source but rather on timbre or "voice quality" (Leeuwen 1999, 25) and on whether or not the listener is able to establish an imaginary intimate relationship. Despite the loudness with which an instrument is played or a voice is articulated, its sound can be truly warm and intimate or rather harsh and cold. In addition, due to technological developments allowing several timbric manipulations (microphone and editing), *social distance* has gained prominence as an articulatory parameter yielding different levels of formality/intimacy between the sound articulated and the listener. *Social distance* is measured by reference points positioned on a continuum such as: *intimacy*, corresponding to a whispered or soft voice; *personal distance*, corresponding to the relaxed and soft voice used when discussing matters with our friends; *informal distance*, reflecting the causal voice adopted to discuss business maters informally, that is, by using a relatively higher pitch and volume; *formal distance*, corresponding to the tenser and projected voice deployed to speak in formal or public contexts; and *public distance* representing the loudest sound or loudest voice we may deploy to speak to someone very distant. Each category leads the listener to imagine a more intimate or distant relationship with the singer. Each category furthermore gains its own corollary in the Grammar of Visual Design, specifically *very close shot*, *close shot*, *medium shot*, and *long shot*.

In opposition to perspective, and at the other end of the continuum, there comes *immersion* or "wrap-around sound" (Leeuwen 1999, 28) achieved through low-frequency sounds and with long reverberation times. In one case or another, sound fills the space and deludes perspective and its hierarchization of sounds. Immersion came to the fore as a result of avant-garde music and the listening practices developing out of the new technologies that have effectively challenged the clarity and focus of perspective. *Immersion* has today largely been welcomed due to its effectiveness in wrapping sound around listeners that has fostered the understanding of sound-based museum practices as

social technologies prone to exercising identitary identification, participation and communion among museumgoers.

(2) Time and rhythm

Van Leeuwen (1999, 38) perceives time not as a phenomenon of nature but rather as a regulator of our activities in keeping with "[…] the way a given society handles musical time can present or represent the way that society handles the timing of social activities generally, in other words, its 'order of time.'" Markers of time allow us to understand time. These unfold into *measures*, a divisor of time in frames of equal duration each; *phrases*, a group of measures forming a musical statement; *tempo*, with a duration ranging from 40 to 208 pulses by minute; and *pulse*, a "sound which is 'stressed', made more prominent by means of loudness, pitch, relative duration or some combination of these" (Leeuwen 1999, 42). *Pulse* is furthermore the carrier of the most fundamental communicative information. The phrasing and pulse bestow the structure for filling with a melody, i.e., a sound act.

If no regularity can be identified, time remains *unmeasured*. In *unmeasured* musical events, including those of Medieval Church music, there is no measurable regularity. Alternatively, the stream of sound can flow either *continuously*, i.e., incorporating neither any phrasing nor any variation in pitch, or by displaying rhythmic *fluctuations*, i.e., also demonstrating no phrasing but while varying in pitch. In terms of meaning, *unmeasured* time is understood as signifying grandiosity and vastness, for instance of nature or God (Leeuwen 1999, 52) in contrast to everyday activities.

Whenever regularity features, time is *measured*. Measured musical events unfold into *polyrhythmic* or *monorhythmic*, *metronomic* or *non-metronomic*, and *regularized* or *non-regularized*.

Monorhythmic refers to when all participant musicians are synchronised by the authority of a metronome, a drum set, a conductor, while *polyrhythmic* means the opposite, for instance, each musician follows his/her own rhythm. Polyrhythmic favours the coexistence of several individuals, that is, pluralism. Van Leeuwen (1999, 56) maintains "[…] polyrhythmic music suggests a relationship between the individual and the group in which one's own unique identity, one's individuality, cannot be seen as

threatened by the need to conform to a group. On the contrary, a distinct and unique individuality cannot exist without the group."

As regards *metronomic* musical events, they align rhythmically with the main beat while bypassing, anticipating or delaying this in the non-metronomic sections by means of suspensions, delaying the beat, and stretching time; effects able to cause great affective tension.

Three metrical parameters determine the extent to which a sonic event is *regularized*, specifically tempo, the number of notes per measure, and the number of measures per phrase. Virtually, all combinations of regularization of these parameters are possible whether for speech, music or other sounds and depending, on the combinations, the sonic events are *regularized* or *non-regularized*. Different metrical patterns hold different meanings. As van Leeuwen (1999, 46) goes on to state, meanings are determined by the *provenance* of the metrical pattern, i.e., where it comes from, and by its *experiential meaning potential*, i.e., what was the producer intending when he/she produced the pattern and which associations does a person make when listening to any given pattern.

Van Leeuwen (1999, 48) distinguishes between two "time signatures" which he describes as having dominated erudite Western music since the introduction of time. These are *duple time* (counting in two or in four) and *triple time* (counting in three). In terms of provenance, duple time-driven musical forms stem from collective dances, such as allemandes and polonaises deploying community values. These, nonetheless, have more recently fallen into abeyance in favour of other duple time-driven events, such as the public parades and military marches striving to express national ideals and mechanically organise the collective through their binary division. Triple counting, in turn, has long been associated with the "close couple dance" (Leeuwen 1999, 48), especially with the *waltz* that best conveys the togetherness of the couple while maintaining room for "self-expression and privacy" (p. 48). In short, whereas forms governed by double time express national vigour, work, public ceremony and the heroic, forms governed by triple time express the sentimental, leisure, and the salon: in other words, the feminine in opposition to the masculine (Leeuwen 1999, 49). In terms of *experiential meaning potential*, Leeuwen argues, musical compositions always encode the way time is lived by a community. Duple time commonly associate with everyday activities and work, i.e., the rules, while triple time is often associated with the

exceptional, for Aristotle the "noble" and the "dignified," for the Romantic era "individuality" and "emotive expressivity" (Leeuwen 1999, 51).

(3) The interaction of voices

The ways in which voices, be they human or instrumental, interact (or otherwise) produce meanings. Van Leeuwen (1999, 71) stresses interaction to reflect power relations ranging from forms conveying unequal power between the participants, thus often entailing struggles for power, to forms expressing "equality, cooperation, collaboration and the joint production of meaning." The author moreover set out a framework (1999, 85) encompassing all possible patterns of practice. This starts by distinguishing between the *monologic*, when there is only one participant in the production, from *dialogic* structures, when there are two or more production participants. Dialogic structures take one of the three following dispositions: two or more voices/instruments interacting, giving way to a duet, a trio, a quartet, a quintet or a sextet; two or more groups interacting; and a leader and a group interacting. In terms of the forms of interaction, they unfold into the following typology:

Both in conversation and in music, voices/instruments can follow *sequentially* or *simultaneously* correspondingly forming linear or tick speeches/musical compositions.

In terms of *simultaneity*, musical modes of interaction express everyday modes of interaction while asserting the role of music in achieving social identity, a sense of belonging, and cultural cooperation (Leeuwen 1999, 77). Simultaneity can be either *unstructured* or *structured*. The interaction is *unstructured* when there are several independent musical lines in terms of melody, rhythm or even in terms of the accompanying harmony and correspondingly, no dominance. Unstructured interaction results not only from one single musical composition, for instance, contemporary music, but also from the coexistence of several musical practices in a given place, for instance, outdoor celebrations or of several feminine voices speaking in a party or in an informal meeting (Leeuwen 1999, 78). In turn, *structured* interactions take place whether in *unison* or non-*unison*. Depending on the context of usage, *unison* can either mean concordance and common identity or, contrariwise, "[…] conformity, strict disciplining and a lack of individuality, a society dominated by males" (Leeuwen 1999, 79). Unison also has different meanings depending on whether all voices fuse in a *blended*, homogenous sound

or if, inversely, each timbre is clearly heard resulting in an *unblended* sound. As regards *non-unison*, this unfolds into *plurality* or *dominance*. *Plurality* occurs when several voices are allowed to be distinctly heard and valued. This translates into polyphonic musical practices conveying a rationale in which there is not any one single participant but rather several different active and relevant participants in society, in other words, "social heterogeneity" (Leeuwen 1999, 80). Plurality can moreover develop in *parallelism* (voices following the same line but with each assuming its own pitch, i.e., soprano, alto, tenor, and bass; thus not proclaiming exactly the same thing) or in *opposition* (voices following opposite paths although matching harmoniously). *Dominance*, in turn, occurs one voice clearly and distinctly stands out from the others. The other voices moreover do not attain their own melodic value but rather assume significance in relation to the whole. Lastly, both *parallelism* and *opposition* can develop "[…] in *harmonious*, cooperative interaction or in *disharmonious*, competitive and conflictual interaction" (Leeuwen 1999, 84).

In terms of *sequentiality*, practices usually represent "a sense of difference or opposition" (Leeuwen 1999, 71) performed by adjacent pairs typically constituted of two individual voices or groups of voices, or by an individual voice and a group of voices performing in a turn-taking style. The idea of sequential dialogue involves at least two participants and may be extended up to seven participants. The most common complementary relations taken by adjacency pairs are *repetition* or *response*. Repetition unfolds into *imitation*, that is, when a leader's voice is imitated and *emulation*, thus, when a chorus repeats the final line of each verse. Response, in turn, unfolds into *formulaic*, hence, a call followed by a brief answer that differs from the call and *fully stated*, therefore, when there is a different and fully stated answer to a call. Both answering practices can take on the quality of being positive, supportive, affirmative, or inversely, disagreeing, opposing, contrasting or dissenting (Leeuwen 1999, 75). In terms of meaning, the greater the time intermediating between the two moves, the greater their power difference or other symbolic distance. Conversely, the greater the extent of overlap between the moves, the greater the decline in their symbolic distance.

(4) Melody

Melody serves to establish a *setting* or an *action*. More specifically, melodic patterns can emerge as *sound acts*, that is, sonic units of meaning with individual value by means of "[…] individual moves in the ongoing, linear progression of a sound event with a beginning, a middle and an end" (Leeuwen 1999, 114) or *sound settings*, thus, ambiences built out of continuous repetitions of short melodic patterns. Sound settings and sound actions can appear in isolation or in combination.

Sound settings may be either *social* or *environmental*. Should the repetition be precise and cyclic, this quality dilutes in the listener's ear and undertakes the role of a background for human activities, and the sound setting specifically becomes a *social setting*, rather than as a melody standing out with individual value — repetitions that, when transposed to another key, nonetheless acquire a sense of melodic progression and with their patterns assuming the role of a sound act instead of a sound setting. If, contrariwise, the sound settings are made out of some kind of ongoing drone or oscillating texture that demonstrates no connections with human activities but rather resemble natural phenomena, this therefore becomes an *environmental setting*. Whether constituting social or environmental settings, repetitions can moreover be *mechanical* or *organic*. In the former case, the patterns are precisely identical thereby invoking, in semiotic terms, the dynamics of mechanic daily human actions and work; in the latter case, the patterns vary slightly from time to time, i.e., by displaying *micro-variety*, thereby invoking the natural world in which there are slight differences ongoing among the repeated patterns.

As regards melodies constituting sonic units of meaning with individual value, hence *sound acts*,[105] several dimensions are worth considering. In detail, melodic phrasing results from a specific combination of several features such as *pitch movement*, *pitch range*, *pitch level*, and *melodic articulation*. The *provenance* of these aspects is key here: ultimately, its experiential meaning potential derives from our ideas about a given choice in terms of movement, range and level. From the meaning potential of each aspect, we can grasp the meaning potential of the melodic phrase as a whole. Nevertheless, the melodic and the verbal phrases it might eventually be simultaneously carrying do not

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[105] Phrasing and pulse provide us with a structure for filling with a sound act in the form of a melody.

necessarily have to match; therefore, musical phrases can sound different to the content of the text they carry.

In terms of the melodic pattern of phrases, i.e., *pitch movement*, its classification unfolds according to the direction of the melody into *rising*, *falling* or *level*, or any combination of these. *Rising* is often linked to questions and commands and realizes activation; *falling* often corresponds to statements and undertakes a deactivation with participants driven to a state of "non-activity – relaxation, contemplation" (Leeuwen 1999, 111), and with a *level tone* relating to tentative statements. *Fall-rise* associates both with "a movement 'from the known to the unknown or a sense of reservation" whereas *rise*-fall indicates "a movement from the unknown to the known" (Leeuwen 1999, 102). Other linguistic approaches apply the term *ascending* to designate rising melodies expressing extroverted and active emotions and the term *descending* to designate introverted and passive emotions. These types of melodic contour moreover combine with intonations of finality or continuity, i.e., the end configurations of melodic phrases. In detail, the direction of pitch can either establish its *final* or, inversely, its *continuity*. Usually, a final entails the melody falling to a low pitch or to the tonic and with continuity entailing a rising of the pitch or the usage of a note other than the tonic. Depending on the place where finality or continuity are deployed in the whole composition, these may convey interactive attitudes such an authoritative or collaborative approaches as well as assertiveness or tentativeness (Leeuwen 1999, 101).

Pitch range is also proficient in identifying meaning in relation to a specific social group or context. Whichever the direction of the melodies, its movement can develop by means of larger or shorter steps. As a general rule, the larger the steps, the greater the room for emotional expansion for the expression of strong emotions and feelings; correspondingly, the smaller the steps, the more these expressions are confined or avoided, either because of fear, timidity, modesty, tiredness or lack of energy. A wide pitch range has also been linked with "'excitement', 'surprise', 'anger', and a narrow pitch range [with] 'boredom', 'misery'" (Leeuwen 1999, 6).

Pitch level applies different meanings depending on the loudness it combines with. As such, a high pitch level produces dominance when articulated with "formal distance," that is, with the "tenser" and projected voices we adopt to speak in a formal or public context. Whenever, contrariwise, articulated with "personal or intimate distance," this produces tenderness. As regards low pitched voices, they produce assertiveness and

dominance when articulated with "formal distance" and emerge as dangerous and dark when articulated with "personal or intimate distance."

Attention also needs paying to the ways in which the syllables or the notes of a melody are articulated, that is their *melodic articulation*. As a general rule, such articulation is *disjunctive* when articulated in *staccato* ("short separate tabs" (Leeuwen 1999, 109) and *connective* when articulated in *legato*. Their meanings derive from the context of production: as it takes more energy to produce separate attacks, disjunctive articulation stands for a "[…] lively and energetic approach, or a bold and forceful attack" (Leeuwen 1999, 110) whereas connective articulation stands for a more serene, languid, "creamy" and even sensual approach.

(5) Sound quality and timbre

The materiality of sound, i.e., the quality and timbre of the sound source, merit careful consideration in van Leeuwen's framework (1999): in semiotic terms, the author describes what the quality of a given sound presents or represents by addressing a combination of several key features such as *tension*, *roughness*, *breathiness*, *loudness*, *pitch register*, *vibrato*, and *nasality* (Leeuwen 1999, 140). As regards the other parameters addressed above, the meaning of sound quality derives from the experiential meaning potential, i.e., from how we produce the sound with our body and how we "extend our practical experience metaphorically" (Leeuwen 1999, 140) as well as by how we have been grasping and absorbing metaphoric extensions produced by others, that is, provenance (Leeuwen 1999, 139). Sound quality meanings moreover stem from listener responses to a given sound source and to the people participating and that commonly associated with them. Although the majority of the features presented are discussed in relation to the case of voice, the same rationales apply to virtually every sound. In short, a sound depends on the materiality of the objects yielding it and on the physical actions that produce them (Leeuwen 1999, 139)

Tension vs. laxness

A tense voice results from tensing the muscles. In terms of meaning, this thereby presents and represents tension as well as inducing tension. The context in which a tense voice is deployed furthermore enhances its meaning. In fact, tense voices not only link up to a wide range of circumstances, such as nervousness and anxiety, but also to a formal

speaking presentation entailing the projection of the voice, with such situations requiring great self-control or alertness, and so forth. For other sounds, tension vs. laxness mainly depends on the rigidity/flexibility of the materials producing the sound and on the acoustic properties of the resonating environment. In terms of gradient, sounds can vary from maximum tension to maximum laxness.

Rough vs. smooth

A rough voice is achieved through the addition of several aperiodic vibrations to a tone which cause noise in the spectrum (Leeuwen 1999, 132): it thus follows that the more the sound is periodic, the greater its smoothness. The meanings stemming from there depend significantly on the cultural context of application for the Western world has long been greatly valorising perfectionism and the polishing of a smooth voice whereas Afro-American practices rather valorise roughness. Roughness is moreover distinctive of the industrial age soundscape in contrast to the sound of science fiction films which is ethereal and almost "womb-like" and "cushioned" (Leeuwen 1999, 132). In terms of gradient, sounds can vary from maximum roughness to maximum smoothness.

Breathiness

Breathiness refers to sounds which breathe together within the tone of the voice or a "softly sighing breathiness" (Leeuwen 1999, 133) together with other sounds or music. In terms of effect and meaning, breathiness envelopes the listener and often associates with the excitement of feeling breathless. Due to the sense of proximity of a breathiness sound, it often stands for intimacy (Leeuwen 1999, 40). The extent to which a sound is breathiness is measured in degrees.

Loudness

Loudness is a feature common to the *perspective and social distance* parameter, which I have detailed above, and *sound quality and timbre*. This being the case, only a few additional remarks are needed here. Loudness vs. softness depends on the level with which a given sound is actually produced in articulation with its physical distance to the listener, as well as on *social distance*, that is, the aptitude of a given sound to create a sense of intimate vs. a sense of distance in the listener. As a general rule, softer sounds tend to induce a sense of "intimacy and confidentiality" (Leeuwen 1999, 133) whereas louder sounds foster a sense of "dominance and power" (Leeuwen 1999, 140). In terms of gradient, sounds can vary from maximum loudness to maximum softness.

Pitch register

Pitch register represents a feature common to the *melody* parameter, as aforementioned, and to *sound quality and timbre* and thus only requiring certain additional remarks here. *Pitch register*, a graded feature, commonly interrelates with gender: nonetheless its interpretation is not literal but dependent on a combination of specific contextual factors only susceptible to decoding within the context of use: hence not always does higher pitch registers mean feminine, private and intimate and with similar variation in the lower pitch registers meaning masculine, public and assertive. In addition to this, pitch register commonly links both to social importance, with higher voices meaning greater power, and to size, with larger objects yielding lower sounds (Leeuwen 1999, 134).

Vibrato

Vibrato refers to the extent to which a sound is "plain and unwavering" or rather has "some kind of 'grain,' some kind of regular or irregular wavering, warbling, vibrating, pulsating, throbbing, rumbling and so on" (Leeuwen 1999, 134). Vibrato is often preferred to plain in keeping with the consideration this results from emotions or a loss of control in contrast to the opposite, that is, a plain sound, depending on the context of use, deemed to mean science fiction, innocent, sacred, or super-natural (Leeuwen 1999, 141). In terms of gradient, from plain to vibrato, there are a range of possibilities.

Nasality

Often negatively connoted, *nasality*, the ability to make a voice sound nasal on the grounds of tension, is related with two aspects: sexual repression, for societies known to repress woman by means of premature marriages, sexual mutilation and severe sanctions for adultery tend to practice singing styles with greater nasality (Leeuwen 1999, 136); division of labour according to sex with societies allowing both men and women to perform the same labours tending to adopt more relaxed and so less nasal singing styles.

(6) Modality

Modality refers to the extent a given presentation or representation sounds true, credible or sincere. Each mode has its specific set of modality scales charactering a given presentation or representation in modality terms: in written communication, degrees of truth are achieved with modal auxiliaries (may, will, must), modal adverbs (perhaps, probably, certainly), and modal adjectives and nouns (probable) (Leeuwen 1999, 156); as

regards visual communication, its modality scales are colour saturation, colour differentiation, colour modulation, contextualization, representation, depth, illumination, and brightness. As for sound, its modality scales are *pitch extent*, *durational variety*, *dynamic range*, *perspectival depth*, *amount of fluctuation*, *amount of friction*, *amount of absorption*, and *directionality*. These scales return measurements of *high*, *medium*, or *low*. In the case of sound, this likewise contains a set of modality markers. Each sound event deploys its own *modality configuration* which should moreover be assessed in relation to a specific *coding orientation* (naturalistic, sensory, or abstract-sensory).

Pitch extent

Pitch extent corresponds to the region in between the lowest and the highest sounds articulated during a sonic event. When there is no pitch variation at all or the extent is only very narrow, the pitch extent is *monotone*. At the other end of this continuum, which comprises several stylized forms such as chanted calls and responses in church or African drum practices, pitch extent is said to have the maximum wide range. According to Leeuwen (1999, 172), a naturalistic representation entails a fairly wide pitch range with a monotone pitch extent deemed to negate human emotion. Nonetheless, whenever the extent is extremely large, the presentation or representation becomes 'more than real' or extremely emotional as is sometimes the case of opera, for example.

Durational variety

Durational variety translates into a scale ranging from every articulated sound registering the same duration, i.e., *completely uniform duration*, to every articulated sound reporting a different duration, i.e., *maximum durational variation*. Once again, greater variety links with more emotional presentations or representations as extreme variation also makes the event sound 'more than real' or hyper realistic (Leeuwen 1999, 173).

Dynamic range

Dynamic range refers to the degrees of loudness in a given sonic event. In detail, this ranges from a single level of loudness to a wide-ranging maximum, hence, when a range from *pianissimo* to *fortissimo* occurs in the same event. Again, generally speaking, the higher dynamic ranges link to expressions of emotion (Leeuwen 1999, 173).

Perspectival depth

Perspectival depth varies from *flat*, that is an event showing only figure and no ground or field, to *maximum depth*, that is an event showing a large differentiation between the foreground and the background (an event showing figure, ground and field). Any naturalistic aural setting certainly entails a certain degree of perspective.

Amount of fluctuation

Fluctuation varies from a steady sound to the maximum vibrato, i.e., maximum deep and/or rapid fluctuation. Fluctuation closely associates with the expression of emotion thereby varying from restraint to deep expressions of emotion.

Amount of friction

Amount of friction refers to the degrees of friction and ranges from *maximally smooth* to *maximally rough*. While completely pure sounds are commonly used to express abstract truth, a naturalistic presentation or representation requires a certain degree of noise or grit. Equal to the other parameters detailed above, there is a level of friction beyond which the event sounds "more than real."

Amount of absorption

Amount of absorption ranges from maximum "*dry* to the maximally spacious, reverberating and resonating sound" (Leeuwen 1999, 176). A certain amount of reverb is needed for the event to sound naturalistic. At the same time, beyond a certain point, the sound event begins to sound unreal.

Directionality

Directionality varies from sounds with an easily located direction to sounds enveloping the listener rendering their location very difficult to locate.

The extent to which some articulatory parameters may be amplified or reduced is gauged in accordance with a specific underlying *coding orientation*. Leeuwen (1999) charts the coding orientation by adjudging the modality of sound events to be *naturalistic*, *abstract-sensory* or *sensory* with each providing a different set of criteria depending on whether a sound event seeks to represent or to present a given reality. Presentation differs from representation in that the former event is enacted in the "here and now" while the

latter event is used to speak for a not-present "here and now." As a general rule, presentations obtain greater emotive impact by means of amplifying the articulatory parameters although these might not have to be raised simultaneously together but rather according to specific situations.

Given the aforementioned, according to the *naturalistic code orientation*, the higher a sound *presentation* resembles the normal and the everyday, the higher its modality; and the greater a sound *representation* corresponds to the idea we hold about how it should sound, the greater its modality. As regards the *abstract-sensory code*, this relies on the conjoined presence of abstract representation and emotive effect. In such case, the more a sound event sounds in that way, the greater its modality. In terms of sound presentation, the more this resembles a ritualized and emotionally restrained event, the greater the modality. In terms of the *sensory coding orientation*, with its expected effects including causing an emotive impact in the listener, the distinction between representation and presentation tends to fade as this does not only seek to represent an emotion but rather to have listeners feel it. In the case of horror films, for instance, its aim "[…] is not to represent horror, but to horrify" (Leeuwen 1999, 179). As such, in general terms, a high sensory modality is commonly achieved through amplifying the articulatory parameters.

APPENDIX D: *THE VISITORS*—VISUAL ANALYSIS

I here examine the visual mode of the installation-work *The Visitors* by drawing on the theoretical framework set out in Appendix A. I am seeking to grasp: (1) Representation and the space left for museumgoers to construct meaning. In other words, what is *The Visitors* representing? i.e., what is going on there? Which patterns of experience are depicted? And which music concepts underlie the work? In terms of the experiential and interactive dimensions, I aim to understand, (2) how does the installation-work perform in emotional terms? And (3), how does it perform in sensorial terms?

In providing this analysis, I am aware that I am not only describing the work under analysis but also contributing to the ongoing processual remaking of the semiotic landscape and this contribution is embedded in my own political points of view.

Although all the screens display filmic images, the scenes depicted are very stable, i.e., the filmic images are mostly tailored to the same scene as if each screen were a painting.[106] As such, I have frozen the most representative frames from each screen and follow their presentation by analysing each one[107] through drawing on the analytical concepts from the visual design grammar of Kress and van Leeuwen (2006[1996]). In detail, I set about interrogating the representational, the interactional, and the compositional metafunctions—which were duly introduced in the theoretical framework. Furthermore, I am primarily focusing on the features that plausibly speak to all readers before then gradually working down to other non-evident but significant aspects.

In visual communication, as in the written form, sentences may be *simple* or *complex* with the complex comprising several minor semantical statements embedded in the major expressions. Whereas simple visual statements consist of only one process, complex visual statements often contain several processes coordinated or subordinated to each other (Kress and Leeuwen 2006[1996], 107) as often proves the case among the various screens here. In terms of the visual vocabulary, what at first glance emerges from each screen is a musician alone playing his/her instrument and singing—the exceptions are screen six which depicts an assortment of people singing on the porch and screen nine which presents a musician playing electric guitar while also portraying a naked woman

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[106] Kastner (2016, 134) furthermore applies the term "life-size tableaux" to designate the screens.
[107] As the images were taken directly from the installation-work's video displayed on Youtube by means of the Mac tool *Grab*, their quality is not always as good as I would like. Additionally, because the selection of the grab area is made by manipulating the mouse with the hand, the figures vary in size.

lying on a bed behind him. As music is played clearly and loudly throughout the whole work, the subject "music" is immediately grasped as one enters the gallery. This analysis follows in detail:

Screen 1

Screen 1 shows a woman singing and playing a cello both with a bow and by plucking the strings in what looks like a bedroom or a restroom (in that it contains a divan). The main features are exemplified by the following frames:

Figure 1.1. — Screen 1: frame 1

Figure 1.2. — Screen 1: frame 2
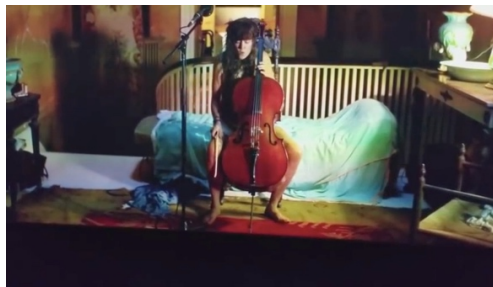
Figure 1.3. — Screen 1: frame 3

Figure 1.4. — Screen 1: frame 4

Figure 1.5. — Screen 1: frame 5

Screen 1's ideational (representational) metafunction

Frames 1, 2, and 3 correspond to the more constant positions adopted by the woman (cello player and singer) throughout the 64 minute duration. Frames 4 and 5 respectively depict Ragnar Kjartansson passing through the room and the cello player arising from her chair to follow him: they both move towards the living room for the grand finale. In global terms, the images are complex in that they display not one but several semantical statements, i.e., processes: in detail, I locate both the conceptual processes (realised by participants who do not contain or fuse with a vector), and the narrative processes (those realised in the presence of a vector connecting participants). I begin by describing the conceptual processes as I consider these to stand out slightly in relation to the narrative processes. According to the Grammar of Visual Design, conceptual processes are either classificational or analytical: whereas the classificational should assume compositional symmetry or a tree-like structure, the analytical display neither of these nor any vectors at all (Kress and Leeuwen 2006[1996], 89). This being the case, the several shots of the woman displayed on screen 1 carry out the following three analytical processes: a *structured analytical process* depicting both the carrier and its attributes and two *unstructured analytical processes*, referring to an abstract or impossible to depict carrier and its attributes. The *structured analytical* process is realized by the leading figure, the woman (carrier), carrying the attributes of a cello player, ultimately a musician, and thus evoking visual concepts of what a musician is and how he/she behaves. In detail, the woman/musician (carrier) is presented as carrying/wearing relaxed and sensual clothes that enhance her sensuality, a pair of headphones and her musical instrument. The positions she adopts throughout the performance differ from those usually adopted in our daily routines; particularly imbued with a sense of fruition and of letting go while also of focus and concentration on the music she is playing. The woman, feeling pleasure through playing music, can be moreover grasped with this eventually resulting from her fulfilling both a sense of the individual and of togetherness. There is thus an ongoing analytical process on screen 1 conveying the notion that a musician requires a person, a musical instrument, technological support, concentration, focus and the ability to engage and to evade the actual world while performing. I would also signpost a second analytical process, an *unstructured analytical* one in which music is an unrepresented and overarching carrier. The fact that music is heard throughout the entire performance in conjunction with the image of the woman playing cello, clearly

links the channel with the subject of music. The cello player and her attributes thus depict both *musician* and *music*. As such, the general category *music* assumes the same attributes as those applied to the *musician*. The setting/ environment in which the woman is placed can be read as an embedded analytical process conceptually supplying relevant new attributes to music. As the unrepresented carrier, *music* is taking place inside the nineteenth-century mansion room displaying particular richness and refined taste and there is an unstructured analytical process conceptualizing music as also bearing the charm, the luxury and the romanticism of the scenery.

As regards the *narrative processes*, these are enacted by vectors as previously described in the theoretical framework. All the frames show a dominant diagonal vector realising an *action process*. This vector fuses with the microphone bulkhead mount. Due to its diagonal position, this connects a non-represented participant (actor), the museumgoers, with the woman (goal). As only one participant is represented in the frames (woman), the motion is non-transactive. As the installation-work was built to be presented in a museum gallery from its very beginning, the framework can be extended to consider that the museumgoers are depicted and so the process is *transactional*. Indeed, as this vector links to the museumgoers placed outside of the frames, it could be conveying the idea that museumgoers are the true participants in what is going on. Mention should also be made of four more vectors given they convey significant narrative processes. One is performed by a long diagonal beginning with the cello's endpin reaching up to the cello's arm, which projects both the cello and the body of the woman (actor) from the ground upwards (goal) thereby suggesting music and the musician are connoted with the celestial and transcendent. It may furthermore be argued that music is portrayed here as something offering direction and meaning, paralleling that often expected from the sky. Frame 1 articulates another vector by the cello's bow which connects the woman (actor) with a non-represented participant (goal). Because this goal is non-represented, this vector would seem to connote the idea that music represents a tool to prompt the imagination. In frame 2, we see the cello's bow has adopted another position, this time pointing upwards, again suggesting a close relationship between music and the celestial and transcendent while in frame 3 the bow forms a vector pointing to the floor which conveys music as connected with structural bases. A fourth vector emerges with the woman's arm and hand, which always connects her to the cello and so clearly narrating actional processes such as "woman plays cello." Lastly, there is sometimes a vector provided by

the woman's glance when directed to something outside the picture frame. As the images are moving, this vector is not permanent but rather appears on the occasions when the woman is clearly looking at museumgoers. This vector creates a reaction rather than an action as the reacter (woman) gazes something identifiable as the museumgoer. Nonetheless, museumgoers are non-depicted on the screen and so this constitutes a non-transactional reactional process. Simultaneously, and in a way similar to that mentioned for the case of the processes realised by the micro-bulkhead, as the installation-work was purposely built to be displayed inside a museum gallery, the theoretical framework can be extended so that museumgoers are considered within the depiction. As such, the process ongoing here is a *transactional reaction* and bidirectional in the sense that the woman reacts virtually to museumgoers and museumgoers react to the woman. I think this process, which I will furthermore also identify on some other screens, should be given special consideration in keeping with how it plays a leading role in making museumgoers feel as though they are part of the performance.

Typically, *narrative processes* represent phenomena dynamically but conceptual processes statically. Although we encounter both here, there is no tension or eventual annulation because both point to the same meaning: each acts to reinforce the other.

Screen 1's interactive (interactional) metafunction

In terms of the *gaze*, the woman depicted in screen depicts an *offer* in that she is there as an item of information for observation. Occasionally, it seems she looks directly at the museumgoer thereby realising a *demand* picture (frame 5 portraying the woman standing up to leave the room represents an exception). In terms of *frame*, the woman is represented in a *medium long shot*. Although the two aforementioned strategies, *offer* and *medium long shot*, might point to a considerable social distance, the fact that the size of the screen is sufficiently large to represent the woman in her real size raises the sense that she is just there, inside the gallery and thus close to the museumgoer.

I now turn to *perspective*. Although each frame displays moving images, these are captured by a fixed camera that ensures its perspectives remain constantly the same and so very easy to grasp. In terms of the horizontal angle, the plane of the producer runs parallel to the plane of the represented female, which corresponds to a frontal point of view meaning the woman and all the scenery form part of the viewers' world. The effect

of such a strategy is that of prompting museumgoers to get involved. According to the Grammar of Visual Design, the frontal angle is an angle of "maximum involvement" oriented to action as well as to state how things are (Kress and Leeuwen 2006[1996], 145). As regards the vertical angle, the image is at *eye level*, i.e., the camera is aligned with the museumgoers' eye conveying how there is no power difference involved. This *eye level* strategy suggests equality between the museumgoer and the represented participant.

In terms of *modality*, the installation-work is made up of nine screens with all the screens sharing the same modality print. As such, I will now describe the overall work's modality as an entirety. As detailed in the theoretical section, high or low modality are always assessed against the values, meanings and beliefs of the coding orientation of a particular genre.

Ragnar Kjartansson has gained recognition as a leading contemporary artist with a diversified range of influences, "[…] stage traditions, film, Icelandic music and literature, opera music, and contemporary popular culture" (Hasham(Ed.) 2016, 9). In the case of the installation-work *The Visitors*, this emerges as a distinctly new media art installation-work. By means of the nine-channels distributed throughout the gallery, the work constitutes a multi-layered portrait of a group of musicians-friends performing a musical piece together which is set out to be experienced spatially. In visual terms, the installation-work draws upon a mix of the cinematic and the photographic milieus as well as resembling the world of paintings. All of these approaches usher in a mood in which reality merges with fiction and everyday life interweaves with dreams. In detail, its settings are full of colourful decoration, art and of objects stemming from a bygone era of wealth and splendour thereby creating a sumptuous and profound spatial experience. As such, in terms of its modality, I believe this installation-work requires analysis by the *sensorial coding orientation* that I described in the theoretical section. More specifically, this illustrates the following:

In terms of *colour saturation*, there is a high degree of saturation in keeping with images seeking to elicit sensorial engagement. I would moreover argue that the settings were chosen because of their richness in terms of their colour and aesthetic appeal. Correspondingly, there is also a high degree of both *colour differentiation* (i.e. a high diversity of colours) and *colour modulation* (i.e. incorporating many different shades). According to Kress and Leeuwen (2006[1996], 236), high colour saturation and high

colour differentiation are signifiers of "adventurousness," with differentiation standing in for the absence of monotony and routine, and saturation for an 'intensity of feeling' and for "living to the full." These meanings perfectly match the vivacity and energy of *The Visitors*. In terms of *contextualization*, the background is well articulated and, regarding *representation*, this clearly enunciates the pictorial details. *Depth* points to a real image in that this gets captured by a frontal angle. As regards *illumination*, there is a great degree of warm light. This warm light even undergoes enhancement in screens 1, 2, 4, and 9 by means of one, in some cases two, lamps which are turned on despite the presence of abundant daylight, and thereby emit yellow light. This illumination is moreover particularly special in that the images are conveyed in a filmic canvas that bestows the images with a luminosity and brilliance resembling that of filmic images. Finally, there is high *brightness* in accordance with the major differentiation between the lightest and the darkest sections. In conclusion, this analysis demonstrates the installation-work contains a high modality level in terms of its sensorial coding orientation. In other words, the nine screens prove the ability to excite sensorial engagement and aesthetical appreciation both through the filmic and through photographic images.

Screen 1's compositional (textual) metafunction

In terms of the *information value*, the woman clearly occupies a central position and so attracts museumgoer attentions. She is moreover the only moving element, which generates a strong effect, grabbing the attention of viewers. The cello she plays also occupies a central position and so becomes a focus of great attention. In keeping with their colours and lighting, other props such as the couch/bed and ceiling lamp are *salient*, although not to the same extent as the woman. As regards the *framing*, the colour contrasts reinforce the woman's leading position. There is, thus, an area in which the woman stands which is more warmly lit and which somehow contrasts with the staircase area and with the walls forming the backdrop. This illuminated area is furthermore reinforced by the line of the micro-bulkhead as a zone of performing and staying rather than a area for crossing on the left hand of museumgoers. In conclusion, the composition suggests the setting and the decoration has been composed and arranged so as to underline the central position occupied by the woman. The woman is the principal feature and there are no other polarizing elements. The whole image is coloured as a warm and affective ambience

Table 1 — Summary of the Visual Analysis of Screen 1

Specific detail depicted	Frame 1 (processes identified)	Frame 2 (processes identified)	Frame 3 (processes identified)	Frame 4 (processes identified)	Frame 5 (processes identified)	Meanings
REPRESENTATION						
Conceptual processes						
Woman + musical instrument + technology + body positions + relaxed clothes.	Structured (musician) analytical process	Structured (musician) analytical process	Structured (musician) analytical process	Structured (musician) analytical process	Structured (musician) analytical process	**Musician has a musical instrument, technology and focus to perform music as well as letting go of body and soul.**
Woman + musical instrument + technology + body positions + relaxed clothes.	Unstructured (music) analytical process	Unstructured (music) analytical process	Unstructured (music) analytical process	Unstructured (music) analytical process	Unstructured (music) analytical process	**Music has a musician, his/her musical instrument and technology. Music has specific knowledge and focus. Music causes the letting go of the body and soul. Music has sensuality. Music has evasion, fruition, pleasure, and transcendency. Music has individual and togetherness.**
Exquisite decoration, namely objects, fabrics and colours.	Embedded unstructured (music) analytical process	Embedded unstructured (music) analytical process	Embedded unstructured (music) analytical process	Embedded unstructured (music) analytical process	Embedded unstructured (music) analytical process	**Music has charm, luxury, and romanticism.**
Narrative processes						
Micro-bulkhead ⇨ fused with a diagonal vector ⇨ museumgoers.	Action process Non-transactional/ transactional	Action process Non-transactional/ transactional	Action process Non-transactional/ transactional	Action process Non-transactional/ transactional	Action process Non-transactional/ transactional	**Museumgoers participate in the performance.**
Ground ⇨ cello's endpin and arm and woman ⇨fused with a diagonal vector ⇨ sky/above.	Action process Non-transactional	Action process Non-transactional	Action process Non-transactional	Action process Non-transactional	X	**Music and musician link to the celestial and the transcendental, offering direction and meaning.**
Cello's bow ⇨ fused with a linear/diagonal vector ⇨ nowhere/ sky/ ground.	Action process Non-transactional	Action process Non-transactional	Action process Non-transactional	X	X	**Music prompts imagination. Music links to the celestial and transcendental. Music sets structure.**
Woman's arm and hand ⇨ articulating a linear/ diagonal vector ⇨ cello.	Action process Transactional	Action process Transactional	Action process Transactional	Action process Transactional	Action process Transactional	**Woman plays cello. Woman makes music.**
Woman's glance ⇔ articulating a bidirectional linear vector ⇔ museumgoers.	Reaction process (non-transactional/ transactional reaction)	Reaction process (non-transactional/ transactional reaction)	Reaction process (non-transactional/ transactional reaction)	Reaction process (non-transactional/ transactional reaction)	X	**Museumgoers are part of the performance. Museumgoers act/ influence on what is going on.**
INTERACTION						
Gaze						
The woman is not looking directly at the museumgoer. Occasionally, the woman looks directly at the museumgoer.	Offer — occasionally demand	Offer — occasionally demand	Offer — occasionally demand	Offer — occasionally demand	—	**The woman is offered to the museumgoer as an item of information. The woman also invites the museumgoer to come closer. Museumgoers can thus establish an imaginary relationship with the woman thereby achieving reciprocity.**
Frame						
The full woman is depicted. The woman is depicted by her real size.	Medium long shot	Medium long shot	Medium long shot	Medium long shot	Medium long shot	**The woman is close to the museumgoers as if she is there, present in the gallery.**
Perspective						
The producer's plane is aligned with the plane of the represented participant (woman).	Horizontal Angle — frontal point of view	Horizontal Angle — frontal point of view	Horizontal Angle — frontal point of view	Horizontal Angle — frontal point of view	—	**The woman and what's going on there is part of our world and museumgoers can get involved.**
The woman is shown at the eye level of museumgoers.	Vertical angle — eye level	Vertical angle — eye level	Vertical angle — eye level	Vertical angle — eye level	Vertical angle — eye level	**A relationship of equality and empathy is prompted — there is no difference in power involved.**

Modality						
Parameters were assessed against a sensorial coding orientation.	High modality	High modality	High modality	High modality	High modality	**The images prove highly sensorial thereby exciting sensory engagement and aesthetical appreciation.**
COMPOSITION						
Information value						
The woman singing and playing cello occupies the centre of the screen.	Central	Central	Central	Central	—	**The pair, woman and cello, are the leading figures**
Salience						
The woman singing and playing cello are the most salient elements. The lamps and couch/bed are also salient but less so than the woman and cello.	Woman and cello	Woman and cello	Woman and cello	Woman and cello	Woman and cello	**The pair, woman and cello, are the elements of greatest interest. The setting is in itself significant and enlivens their meaning.**
Framing						
Colour contrasts and lines help create two areas: one favouring the emphasis on the woman singing and playing cello by means of warm and affective colours, and another opaquer and darker.	Colour contrasts and lines	Colour contrasts and lines	Colour contrasts and lines	Colour contrasts and lines	—	**The pair, woman and cello, are the leading figures. The whole setting is embedded in a warm and affective ambient.**

Screen 2

Screen 2 portrays a man singing and playing both a grand piano and an electric bass guitar in a living room. In the middle of the performance, the man leaves this setting to join another musician playing another grand piano and smoke a cigar with screen 2 transitorily left without any human presence. He then returns to his original setting and continues singing and playing. The main dispositions are exemplified by the following frames:

Figure 2.1. — Screen 2: frame 1

Figure 2.2. — Screen 2: frame 2

Figure 2.3. — Screen 2: frame 3

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Screen 2's ideational (representational) metafunction

Similar to screen 1, screen 2 also comprises three analytical processes conceptually depicting both the carrier *musician*, by means of a *structured analytical process*, and the unrepresented carrier *music*, by means of two *unstructured analytical process*. In detail, there is a *structured analytical process* conveying the idea that a *musician* (carrier) has a musical instrument and technological support. Nonetheless, in comparison to screen 1, the body positions of the man depicted are here much more contained with his clothing not deliberately conveying any idea of relaxing and intense engagement. The concentration and focus, on the other hand, are explicit and qualify as significant to the performing of the music. As the music is playing and all the scenes refer to music, the man/ musician is also indirectly representing the subject *music* which is the carrier of an *unstructured analytical process*: this process is moreover embedded in the former and so assigning music with the same attributes at those identified for the musician. The second *unstructured analytical process* also displays the overarching phenomena of *music* as the carrier; qualified here by the attributes of the setting in which the scene takes place. The luxury and glamour of the mansion's decoration are here much more explicit than in screen one — there is a grand piano, a sofa covered in thick green silk, a painting hanging against fine wallpaper, an exquisite carpet, and the richness of goldens colours — and so intensely ascribed to music.

As for narrative processes, and as detailed above, these are enacted by vectors. In all the frames, the grand piano's lid forms a diagonal vector connecting the piano itself (actor) with a non-represented participant (goal) suggesting music is connected with something upward, celestial and transcendental. The action is clearly non-transactional in that there is no specific goal represented. The horizontal part of the grand piano's body (actor) also undertakes a non-transactional action by articulating a linear vector oriented to the left side of the screen, which is to say, to nowhere (goal); ultimately, a process conveying the notion that music provides a tool for prompting the imagination. Although the Grammar of Visual Design does not explicitly consider linear vectors as yielders of narrative processes nor does it explicitly exclude them. What is attributed major significance in the Kress and van Leeuwen framework is actually the sense of direction articulated by the vector, which is the case of the process signposted here and in various of the following screens as I shall subsequently detail. The man's position in relation to the viewer is not frontal but diagonal and so there is no reactional process between him

and the museumgoers. His body, nonetheless, establishes a vector connecting the ground to the above thereby interlinking music and musicians with something from above, transcendental and celestial.

Frame 1 shows a dominant diagonal vector portrayed by the guitar's neck which performs an action process connecting the man (actor) with a non-represented participant (goal): as there is no goal specified, the process is non-transactional and the arrangement might easily be flagged as suggesting music as a tool prompting imagination. In frames 1 and 2, the man's right arm and hand consubstantiate a vector connecting the man himself (actor) to the guitar (goal) thereby visually performing the action "man plays the guitar," which is equal to the idea that "man makes music." As both actor and goal are represented, the action becomes transactional. In frame 3, I encounter a similar process depicted by the man playing the grand piano.

Screen 2's interactive (interactional) metafunction

In terms of *gaze*, there is no visual contact between the man represented and museumgoers. This makes the image an *offer*, i.e., the man is depicted as an informational component. In terms of *frame*, the man is portrayed in full and hence corresponding to a *medium long shot*. Although the two aforementioned strategies, *offer* and *medium long shot*, might convey a considerable social distance, the fact that the size of the screen is large enough to represent the man in his real size raises the sense that he is just there, inside the gallery and extremely close to the museumgoer. As regards perspective, and according to the Grammar of Visual Design, two angles require distinguishing: the horizontal and the vertical. In terms of the horizontal angle, the plane of the producer runs perpendicular to that of the represented participant, which corresponds to a very *oblique point of view* conveying the perspective that the participant is not part of museumgoers' world but there to be observed. The vertical angle, in turn, is that of *eye level*, conveying the lack of any difference in power, thus, the image suggests equality between the museumgoer and the represented participant.

In terms of *modality*, the screen's image shares the features described for the first screen (see aforementioned explanation) which demonstrates how the image has a high modality in the scope of a sensorial coding orientation. This means the screen

encapsulates a particular ability for museumgoers to engage both in sensorial and in aesthetical terms.

Screen 2's compositional (textual) metafunction

In terms of *information value*, there is a slight polarization between the man on the right and the piano on the left (frames 1, 2, and 3). According to the Grammar of Visual Design, elements on the left become the *given* so those on the right become the novelty, i.e., the *new*. This translates as if the piano (given) is giving way to the man (new) to be introduced and to shine. The *salience* also contributes to this depiction in that the piano on the left is darker and the man on the right lighter. That the man is a moving element is also determinant for him becoming the subject of greater attention. The man is playing the guitar and so they become a pair. This man and guitar pair is moreover enclosed by the light coming through the window on the left and the yellow light issued by the lamp on the right. These two points of light successfully embed the man in an area of warm luminosity. In keeping with their colours, other elements, such as the couch, also make the man's area more *salient*. The area reserved for the piano becomes significant in that it plays a contrasting force and thereby a supporting role for the man to appear as the figure of major attention. As regards the *framing*, a vertical line formed by the window's right frame and the dark bust separates the given from the new, i.e., the piano's area from the man's area, which is presented in a warm clarity and amidst the glamour of the colours of the surrounding decoration. In conclusion, the man and the guitar pair represents the principal figure, its primacy enlivened by the polarising role played by the piano. The entire image is coloured with a warm and affective ambient.

Table 2 — Summary of the Visual Analysis of Screen 2

Specific details depicted	Frame 1 (processes identified)	Frame 2 (processes identified)	Frame 3 (processes identified)	Meanings
REPRESENTATION				
Conceptual process				
Man + musical instrument + technology + body positions.	Structured (musician) analytical process	Structured (musician) analytical process	Structured (musician) analytical process	**Musician has a musical instrument, technology and focus to perform music.**
Man + musical instrument + technology + body positions.	Unstructured (music) analytical process	Unstructured (music) analytical process	Unstructured (music) analytical process	**Music has a musician, his/her musical instrument and technology. Music has specific knowledge and focus. Music has the letting go of the body and soul. Music has evasion, fruition, pleasure, and transcendency. Music has the individual and togetherness.**
Exquisite decoration, namely objects, fabrics and colours.	Embedded unstructured (music) analytical process	Embedded unstructured (music) analytical process	Embedded unstructured (music) analytical process	**Music has charm, luxury, and romanticism.**
Narrative processes				
Grand piano's lid ⇨ fused with a diagonal vector ⇨ sky/above.	Action process Non-transactional	Action process Non-transactional	Action process Non-transactional	**Music links to the celestial and transcendental, providing direction and meaning.**
Grand piano's body ⇨ fused with a linear vector ⇨ nowhere.	Action process Non-transactional	Action process Non-transactional	Action process Non-transactional	**Music prompts imagination.**
Ground ⇨ Man's body ⇨ articulating a linear/diagonal vector ⇨ sky/above.	Action process Non-transactional	Action process Non-transactional	Action process Non-transactional	**Musician links to the celestial and the transcendental, somehow indicating direction and meaning through music.**
Guitar's neck ⇨ fused with a diagonal vector ⇨ nowhere	Action process Non-transactional	X	X	**Music prompts imagination.**
Man's hand ⇨ articulating a linear/diagonal vector ⇨ guitar/ grand piano.	Action process Transactional	Action process Transactional	Action process Transactional	**Man plays the piano. Man makes music.**
INTERACTION				
Gaze				
Man is not looking directly at the museumgoer.	Offer	Offer	Offer	**The man is offered to the museumgoer as an item of information.**
Frame				
The full man is depicted. The man is depicted in his real size.	Medium long shot	Medium long shot	Medium long shot	**The man is close to the museumgoer as if he is there in the gallery.**
Perspective				
The producer's plane is perpendicular to the plane of the represented participant.	Horizontal Angle — oblique point of view	Horizontal Angle — oblique point of view	Horizontal Angle — oblique point of view	**Man is depicted as the other for museumgoers to contemplate.**
The man is shown at the eye level of museumgoers.	Vertical angle — eye level	Vertical angle — eye level	Vertical angle — eye level	**A relation of equality and empathy is prompted — there is no power difference involved.**
Modality				
Parameters were assessed against a sensorial coding orientation.	High modality	High modality	High modality	**The images prove highly sensorial thereby stimulating sensory engagement and aesthetical appreciation.**
COMPOSITION				
Information value				
There is a polarization between the piano and the man both positioned across an imaginary horizontal line: the piano on the left (given) the man on the right (new).	Given ⇨ new	Given ⇨ new	Given ⇨ new	**The man and guitar pair are the leading figures.**
Salience				
The man is in an area of greater luminosity. The light coming from the two lamps embeds the man in luminosity. The rich colourful and warm decoration adds to the man's significance.	Man and guitar	Man and guitar	Man and guitar	**The man and guitar pair are the elements of greatest interest. The setting is significant in itself and enlivens their meaning by means of a warm and colourful surrounding ambient.**
Framing				
There is a vertical line formed by the window's frame on the right and the dark bust separating the area of given from the area of new.	Colours contrasts and vertical dividing line	Colours contrasts and vertical dividing line	Colours contrasts and vertical dividing line	**The man and guitar pair are the leading figures. The whole setting is embedded in a warm and affective ambient.**

Screen 3

Screen 3 displays a naked man (the installation-work composer, Ragnar Kjartansson) lying in a filled pedestal bathtub, singing and playing a beat-up electric guitar. The man is immersed in the tub with only his chest, shoulders, arms, and head visible until the final moment when the man gets up from the tub and wraps his body in a towel before leaving the bathroom. The screen's main dispositions are exemplified by the following frames:

Figure 3.1. — Screen 3: frame 1

Figure 3.2. — Screen 3: frame 2

Figure 3.3. — Screen 3: frame 3

Screen 3's ideational (representational metafunction)

In terms of the dominant features, and similar to screens 1 and 2, my analysis here signposts three conceptual processes: a *structured analytical process* depicting Ragnar who is ultimately illustrating *musicians* in general. Musicians are thus described as having a musical instrument, technology, focus and concentration. Ragnar's nakedness, although veiled by the foam, connotes music with the capacity of releasing the body and soul, a sense of evasion and transcendental pleasures, while also bringing instinct and sexuality to the depiction. Ragnar's nakedness also introduces surprise and somehow some humour, a feature often identified as permeating Ragnar's works. Once again, as music is playing and the entire installation-work is committed to music, the figure of Ragnar also yields an embedded and *unstructured analytical process* that depicts *music* in general

with the aforementioned attributes applied to the musician. Lastly, the overall setting should be mentioned in that this semantically adds to the depiction of the non-represented carrier *music* by means of an *unstructured analytical process*. The music thus gets endowed with the romantic attributes of the pedestal bathtub and the luxurious background colours of the contiguous room.

In terms of narrative processes, the positioning of the bathtub with Ragnar (actor) deploys a diagonal vector in every frame to undertake an action process with the effect of bringing museumgoers into the scene and so positioning them as actual participants (goal) in the scene. Although this action process may be considered non transactional, in that there is no actual goal depicted, it can likewise be considered transactional should we extend Kress and van Leeuwen's framework to consider museumgoers as part of the depiction — as I similarly reported in the case of the action process realised by the micro bulkhead in screen 1. Frame 1 contains a diagonal vector realised by Ragnar's arm, the guitar's body and neck (actor) pointing to nowhere (goal) and thereby achieving two action processes: with one transactional, conveying Ragnar playing the beat-up electric guitar and so making music; and with the second non-transactional as there is a non-represented participant and proposing music as a resource for individual imagination. Frames 1 and 2 show a vector articulated by Ragnar's glance which is directed at museumgoers outside the picture frame. This creates a bidirectional, transactional and reactional process as the reacter (Ragnar) looks over at those identified as museumgoers — in a way similar to that described in screen 1. This process plays a leading role in making museumgoers feel as though they form part of the performance. Finally, in frame 3, Ragnar arises from the bathtub, his body naked and articulating a linear/ diagonal vector from the ground to the sky, suggesting a non-transactional action process connoting musicians with the celestial and transcendental.

Screen 3's interactive (interactional) metafunction

In terms of *gaze*, Ragnar does not seem to be looking towards museumgoers, which corresponds to an *offer* in which Ragnar is depicted as an item of information for observation. Occasionally, because Ragnar is positioned practically in front of museumgoers, it might seem as though he is looking directly at museumgoers and the image becomes a *demand*. As regards *frame*, Ragnar is depicted in a *medium shot*, i.e.,

when standing he is depicted from his ankles upwards. Due to the screen being large enough so as to represent Ragnar according to his real size, and with the whole gallery covered with screens, the museumgoer receives a sense of close proximity as if he/she are in the midst of the performance. Lastly, in the case of *perspective*, in terms of the horizontal angle, the plane of the producer runs slightly oblique to that of Ragnar in the bathtub. As such, the meaning suggested might be that the naked Ragnar singing in the bath is not exactly from the world of the museumgoers. Despite this, that the angle of obliqueness is very light, coupled with the fact that the figure of Ragnar clearly occupies the centre of the image, leads me to believe that the image ends up working as a *frontal point of view*. Given this, the image thus prompts great involvement and a sense of clearly stating the musicality. In terms of the *vertical angle*, Ragnar is captured from a very *slight low angle* that can be perceived as *eye level*. As such, this might be prompting museumgoer attitudes ranging from a sense of equality and empathy without any power involved through to a sense of museumgoers observing something superior and high.

In terms of *modality*, the screen's image shares the features described for the first screen (see aforementioned explanation), which proves the image obtains a high modality within the scope of its sensorial coding orientation. This means the screen demonstrates a particular ability for museumgoers to engage both in sensorial and in aesthetical terms.

Screen 3's compositional (textual) metafunction

Despite the fact that Ragnar's bathtub is located on the left side of the image, his head is positioned at the centre. In addition, Ragnar is naked and the only moving figure. As such, in terms of *information value*, Ragnar is awarded the most significance throughout the image (frames 1, 2, and 3). The colour of his body moreover enlivens his *salience*. The light issuing from the lamps in the contiguous room might be referenced as somehow counterpoising Ragnar's primacy. Nonetheless, its main function, I would argue, is to endow a warm ambient on the entire image. This counterpoise is enhanced in terms of the *framing* by the vertical line being formed by the left side of doorframe separating Ragnar's area from that of the contiguous room. In conclusion, the whole setting converges around one aim; that of ascribing Ragnar with the most significant role and colouring the spot in a warm and affective light.

Table 3 — Summary of the Visual Analysis of Screen 3

Specific details depicted	Frame 1 (processes identified)	Frame 2 (processes identified)	Frame 3 (processes identified)	Meanings
REPRESENTATION				
Conceptual processes				
Naked man + musical instrument + technology + body positions.	Structured (musician) analytical process	Structured (musician) analytical process	Structured (musician) analytical process	**The musician has a musical instrument, technology and focus to perform music as well as letting go of the body and soul.**
Naked man + musical instrument + technology + body positions.	Unstructured (music) analytical process	Unstructured (music) analytical process	Unstructured (music) analytical process	**Music has a musician, his/her musical instrument and technology. Music contains specific knowledge and focus. Music allows for letting go of the body and soul. Music has instinct and sexuality. Music has humour, evasion, fruition, pleasure, and transcendency. Music has the individual and togetherness.**
Pedestal bathtub + background colours (contiguous room).	Embedded unstructured (music) analytical process	Embedded unstructured (music) analytical process	Embedded unstructured (music) analytical process	**Music has charm, luxury, and romanticism.**
Narrative processes				
Bathtub ⇨ fused with a diagonal vector ⇨ museumgoers.	Action process Non-transactional/ transactional	Action process Non-transactional/ transactional	Action process Non-transactional/ transactional	**Museumgoers participate in the performance.**
Ragnar's arm ⇨ beat-up electric guitar's body and neck ⇨ articulating a diagonal vector ⇨ nowhere.	Action process Transactional + non-transactional	X	X	**Ragnar plays beat-up electric guitar. Ragnar makes music Music prompts imagination.**
Ragnar's glance ⇔ articulating a bidirectional linear vector ⇔ museumgoers.	Reaction process (non-transactional/ transactional reaction)	Reaction process (non-transactional/ transactional reaction)	X	**Museumgoers participate in the performance.**
Ground ⇨ Man's body ⇨ articulating a linear/diagonal vector ⇨ sky/above.	X	X	Action process Non-transactional (no depicted goal)	**Musician links to the celestial and the transcendental, somehow providing direction and meaning through music.**
INTERACTION				
Gaze				
Ragnar is not looking directly at the museumgoer. Occasionally, Ragnar looks directly at the museumgoer.	Offer — occasionally demand	Offer — occasionally demand	Offer — occasionally demand	**Ragnar is offered to museumgoers as an item of information. Museumgoers can establish an imaginary relationship with Ragnar suggesting reciprocity. Ragnar invites museumgoers to come closer.**
Frame				
Ragnar is depicted at his ankles. Ragnar is depicted in his real size.	Medium shot	Medium shot	Medium shot	**Ragnar is close to the museumgoer as if there in the gallery itself.**
Perspective				
The producer's plane is oblique to Ragnar's plane. This obliqueness is very light, and the full image ends up working as a frontal plane.	Horizontal angle — oblique point of view corresponding to a frontal point of view	Horizontal angle — oblique point of view corresponding to a frontal point of view	Horizontal angle — oblique point of view corresponding to a frontal point of view	**The naked Ragnar, taking a bath in the tub, is (not) part of the world of museumgoers and is there to be observed. Greater involvement is prompted.**
Ragnar is captured from a slight, low angle which, in combination with other aspects, can be grasped as an eye level angle.	Vertical angle — slight low angle	Vertical angle — slight low angle	Vertical angle — slight low angle	**A relation of equality and empathy is prompted — there is no power difference involved vs. Ragnar while the latter is given some authority in relation to the museumgoers.**
Modality				
Parameters were assessed against a sensorial coding orientation.	High modality	High modality	High modality	**The images prove highly sensorial thereby exciting sensory engagement and aesthetical appreciation.**
COMPOSITION				
Information value				
Ragnar occupies the centre of the screen.	Central	Central	Central	**Ragnar is the leading figure.**
Salience				
Ragnar is in an area of greater luminosity. The light coming from the lamps in the contiguous room colours the whole scene with warm luminosity which adds to Ragnar's significance.	Ragnar	Ragnar	Ragnar	**Ragnar is the element of greatest interest. The setting is significant in itself and enlivens Ragnar's meaning by means of its warm and colourful stance.**
Framing				
There is a vertical line formed by the door's right frame separating the area of Ragnar from the area of the contiguous room. The two areas are illuminated differently.	Vertical dividing line	Vertical dividing line	Vertical dividing line	**Ragnar is the leading figure. The whole setting profits from the warm and affective ambient of the contiguous room.**

Screen 4

Screen 4 depicts a man sitting in an armchair in a library. He is singing, playing electric guitar and banjo, both with a bow and by plucking the strings. The screen's main layouts are exemplified in the following frames:

Figure 4.1. — Screen 4: frame 1

Figure 4.2. — Screen 4: frame 2
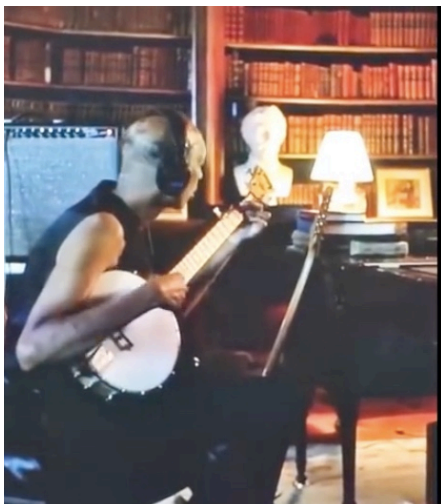
Figure 4.3. — Screen 4: frame 3

Screen 4's ideational (representational metafunction)

The following three conceptual processes are signposted here: a *structured analytical* dimension conveying a general idea of the musician by means of this specific musician. Once again, in addition to having a musical instrument and technological support, musicians are globally connoted with the behaviours of this particular musician. In detail, the musician's focus, concentration and engagement come to the fore by means of this screen. Musicians moreover receive connotations as classy and relaxed in that this specific musician wears a black vest with no shirt or t-shirt below, i.e., dressed in a classy way; two *unstructured analytical processes* both depicting music are also signposted.

One, involving the man as an indirect carrier representing music with its attributes the same as those already attributed to the musician. The other features *music* (an unrepresented carrier) ascribed with the attributes of the setting. In detail, the setting is a private library/office, richly decorated and equipped and so conveying the carrier's sense of refinement and good upbringing.

In terms of narrative processes, due to the positioning of the camera in relation to the setting of the desk on the right side of the image and the wall on the left, most frames display two diagonal vectors, specifically on the right and on the left, starting outside of the screen and thereby including museumgoers, and forming an exit point converging on the lamp, the marble bust and the bound-books on the shelves. In this case, when accepting the depiction of museumgoers even though beyond the borders of the screen, the process becomes transactional, with museumgoers as the actors and the marble bust, lamp, and bound books on the shelves as the goal. This disposition produces the effect of powerfully inviting museumgoers into the screen as if participating in the performance and equating them with the high value of the marble bust, the lamp, and the bound books on the shelves. In frames 1 and 3, the aforementioned left diagonal vector is enhanced by the man's arm and the electric guitar's body and the neck/ banjo's body and neck (actor's), which advance a transactional action process in which the values of the marble bust, the bound books and the lamp (goals) become equated with those of the musician and music. Frame 1 also shows a diagonal vector carried out by the man's legs and the microphone, connecting the man to a non-represented participant on the left and thus realising a non-transactional process proposing music as a tool for imagination. In frame 3, the musician plucks the banjo which is resting on his legs in a vertical position. This arrangement thus performs a linear vector connecting the banjo to the sky, realising a non-transactional action process involving the musician and music with the celestial and transcendental. Finally, the man's position in relation to the viewer is diagonal and so his glance cannot be said to be performing a reactional process.

Screen 4's interactive (interactional) metafunction

In terms of *gaze*, the image clearly constitutes an offer in that there is no eye contact between the man and museumgoers. As such, the man is represented as an item of information for observation by museumgoers. In terms of *frame*, it is a medium long

shot conveyed by a large able to show the man in full. In this sense, this ends up conveying the sense of proximity to museumgoers. As regards *perspective*, in terms of the horizontal angle, the plane of the producer establishes an oblique angle with that of the participant. The point of view is thus *oblique* thereby positioning museumgoers as unconsciously detached from the participant man/musician and observing him rather than engaging with him. There is also a *frontal point of view* yielded by a parallel between the plane of the image producer and the plane of the marble bust and the light, which casts emphasis onto these two objects. In the case of the vertical angle, the image is captured at the *eye level* of museumgoers thereby conveying a great sense of proximity and empathy.

In terms of *modality*, the screen's image shares the features described for the first screen (see the aforementioned explanation) that demonstrate how the image displays a high modality in the scope of its sensorial coding orientation. This means the screen encapsulates a particular ability enabling museumgoers to engage both in sensorial and in aesthetical terms.

Screen 4's compositional (textual) metafunction

In terms of *information value*, the composition is ruled by the archetypal left/ right which determines a *given* and a *new* (frames 1, 2, and 3). The man playing the electric guitar and the banjo is positioned on the left side of the image thereby constituting the *given*; on the right, the two warmly illuminating lamps placed on a desk and on a table constitute the *new*. Although the right side represents the most illuminated area because the man moves to sing and to play music, he is undoubtfully the *salient* figure on which museumgoers cast their first attention. In terms of the resulting meanings, as the given tends to move towards the new, this might be proposing that by means of music man moves towards the more warmly illuminated area. In fact, the man also has lighting falling on his back but the lamps light proves more salient because of its warm colour. The *framing* also corroborates this analysis in that there is an imaginary dividing line, which is diagonal, put into practice by the desk's longitudinal line leading towards the marble bust. In conclusion, the man with guitar (and also banjo) is the leading figure for appreciation. Through music, he moves towards the light. The lighting bestows a warm and affective colour on the entire composition.

Table 4 — Summary of the Visual Analysis of Screen 4

Specific details depicted	Frame 1 (processes identified)	Frame 2 (processes identified)	Frame 3 (processes identified)	Meanings
REPRESENTATION				
Conceptual processes				
Man + musical instrument + technology + body positions + clothes.	Structured (musician) analytical process	Structured (musician) analytical process	Structured (musician) analytical process	**The musician has a musical instrument, technology and focus to perform music as well as letting go of his/her body and soul. The musician has a simultaneously classy and relaxed appearance.**
Man + musical instrument + technology + body positions + clothes.	Unstructured (music) analytical process	Unstructured (music) analytical process	Unstructured (music) analytical process	**Music has a musician, his/her musical instrument and technology. Music has specific knowledge and focus. Music has the letting go of the body and soul. Music has evasion, fruition, pleasure, and transcendency. Music has the individual and togetherness.**
Large and bright window, high-quality furniture, bookshelves with bound books, marble bust, luminous and golden colours.	Embedded unstructured (music) analytical process	Embedded unstructured (music) analytical process	Embedded unstructured (music) analytical process	**Music has charm, luxury, and romanticism. Music has refinement and good upbringing.**
Narrative processes				
Museumgoers ⇨ diagonal vector ⇨ marble bust, lamp, bound books in the shelves, desk on the left, and wall on the right.	Action process Transactional/ non transactional	Action process Transactional/ non transactional	Action process Transactional/ non transactional	**Museumgoers participate in what is going on. Museumgoers link to the value of the marble bust, the lamp, and the bound books in the shelves.**
Man's arm, electric guitar's body and neck /banjo's body and neck ⇨ articulating a diagonal vector ⇨ marble bust, lamp, bound books on the shelves.	Action process Transactional	X	Action process Transactional	**Musician and music link to the value of the marble bust, the lamp, and the bound books on the shelves.**
Man's legs, microphone ⇨ articulating a diagonal vector ⇨ nowhere.	Action process Non-transactional	X	X	**Music prompts imagination.**
Banjo's body and neck ⇨ fused with a linear vector ⇨ sky.	X	X	Action process Non-transactional	**The musician and music link to the celestial and the transcendental, somehow providing direction and meaning.**
INTERACTION				
Gaze				
The man is not looking directly at the museumgoer.	Offer	Offer	Offer	**The man is offered to museumgoers as an item of information.**
Frame				
Man is depicted in full. Man is depicted in his real size.	Medium long shot	Medium long shot	Medium long shot	**The man is close to the museumgoers as if there in the gallery.**
Perspective				
The producer's plane is in an oblique angle with that of the man/musician. The producer's plane is parallel to the plane of the marble bust and the light.	Horizontal angle — oblique angle + frontal angle	Horizontal angle — oblique angle + frontal angle	Horizontal angle — oblique angle + frontal angle	**The man/musician is distinguished as the other. Marble bust and light are highlighted.**
The man is captured at the eye level of museumgoers.	Vertical angle — eye level	Vertical angle — eye level	Vertical angle — eye level	**A relationship of equality and empathy is prompted — there is no power difference involved.**
Modality				
The parameters were assessed against a sensorial coding orientation.	High modality	High modality	High modality	**The images prove highly sensorial thereby exciting sensory engagement and aesthetical appreciation.**
COMPOSITION				
Information value				
There is a polarization between two areas both positioned across an imaginary horizontal line: the man playing guitar (and banjo) on the left (given) and the two warmly illuminating lamps on the right (new).	Given ⇨ new	Given ⇨ new	Given ⇨ new	**The man playing guitar (and banjo) is the leading figure.**
Salience				
The man moves to sing and play the guitar. The two lamps bring a warm luminosity to the whole composition.	Man + two lamps' light	Man + light of two lamps	Man + light of two lamps	**The man playing the guitar (and banjo) is of great interest. Because of its warm light, the two lamps are of great significance.**
Framing				
There is an imaginary, diagonal line realised by the desk longitudinal line towards the marble bust separating two sections: one darker and one more brightly illuminated.	Diagonal dividing line	Diagonal dividing line	Diagonal dividing line	**The man playing the guitar (and banjo) achieves the warm light depicted by means of the two lamps and the marble bust.**

Screen 5

Screen 5 displays a man playing a drum kit in what resembles part of a kitchen or a large pantry. Its dispositions remain very stable until the moment the musician leaves the room to join the group in the main living room. Frame 1 below exemplifies its layout:

Figure 5.1. — Screen 5: frame 1

Screen 5's ideational (representational) metafunction

The conceptual processes endowing the representational metafunction for screen 5 are similar to those defined for the aforementioned screens. I thus grasp a *structured analytical process* conceptually describing *musicians* by means of this specific musician. In detail, in analytical terms, the image states that a musician has a musical instrument, technological support, concentration and engagement. Moreover, the relaxed style of dress suggests musicians are informal and easy-going. I also perceive two *unstructured analytical processes* both describing *music*: one by means of the musician indirectly assuming the role of music (carrier) and so receiving its attributes; and another ascribing the setting's attributes again to music (carrier), which is not otherwise explicitly represented in the scene. In terms of the setting, the screen presents a section of what might have been a rich kitchen or a large pantry/preparation area. As it incorporates signs of antiquity, the scene evokes nostalgia of times past and so ascribes music with these meanings.

In terms of the narrative processes as we view this screen, what stands out is the clear predominance of linear vectors connecting the ground to the above. The musician himself, whose position remains very stable from the beginning up until the moment he leaves the scene, articulates such a vector to suggest musicians and music may be celestial and transcendent as I have similarly observed on several earlier occasions. The white

cupboards and doorframe likewise articulate linear vectors to which similar meanings can be attributed. As such, the three occasions are realising non-transactional action processes.

The frame also presents diagonal vectors performed by the man's hands and drumsticks (actor) connecting him with the drumkit (goal). Although weakly articulated, these convey transactional action processes meaning that the man plays music, i.e., man makes music. The man is positioned in a frontal position in relation to the museumgoers thereby suggesting a bidirectional, transactional and reactional process achieved by his glance over at museumgoers that I would signpost as very significant in making museumgoers feel part of the performance.

Screen 5's interactive (interactional) metafunction

In terms of *gaze*, and despite the represented man being practically in front of the museumgoer, there is no direct visual engagement between them. The image is thus an *offer,* prompting museumgoers to observe. As regards *frame*, similar to most other screens, this clearly depicts a *medium long shot* that suggests a certain some distance. Due to the screen being substantial in size, thereby allowing the man to be depicted in his real size as if present there in the gallery, a great sense of closeness may arise. Lastly, in the case of *perspective*, in terms of the horizontal angle, the plane of the producer does not run parallel to that of the man, i.e., it is slightly oblique. Such a layout may raise detachment from museumgoers towards the man represented and the wish to observe him as an item of information. As regards the vertical angle, the images are captured from an *eye level,* which conveys a great sense of equality and excludes any power difference. In terms of meanings, the *eye level* thereby prompts museumgoers to feel approximate.

In terms of *modality*, the screen's image shares the features described for the first screen (see the explanation above) identifying how the image deploys a high modality within the scope of a sensorial coding orientation. This means the screen demonstrates a particular ability to engage museumgoers both in sensorial and in aesthetical terms.

In terms of organization, a man playing drums clearly occupies the centre of the image. According to the Grammar of Visual Design (Kress and Leeuwen 2006[1996]), the *information value* of the centre is that of attributing incontestable significance to the compositional element placed there. Analysis of the *salience* corroborates the significance attributed to the man playing drums in that there is no other element competing with his importance: the man moves to sing and play drums and thus becomes the focus of the greatest attention for museumgoers. The whole setting is fairly uniformly illuminated and decorated with white kitchen-cabinets and no other salient areas to report. In terms of *framing*, the man playing drums is centred against a door's frame that discloses a light green wall, which somehow assigns the man with the vivacity of its colour. In conclusion, the man playing drums is the figure meriting the greatest attention.

Table 5 — Summary of the Visual Analysis of Screen 5

Specific details depicted	Frame 1 (processes identified	Meanings
REPRESENTATION		
Conceptual processes		
Man + musical instrument technology + body positions.	Structured (musician) analytical process	The musician has a musical instrument, technology and focus to perform music as well as the letting go of his/her body and soul.
Man + musical instrument technology + body positions.	Unstructured (music) analytical process	Music has a musician, his/her musical instrument and technology. Music has specific knowledge and focus. Music has the letting go of the body and soul. Music has evasion, fruition, pleasure, and transcendency. Music has the individual and togetherness.
Old kitchen or pantry area.	Embedded unstructured (music) analytical process	Music has nostalgia.
Narrative processes		
Man's body ⇨ fused with a linear vector ⇨ sky/above.	Action process Non transactional	The musician and music link to the celestial and the transcendental, somehow setting out direction and meaning.
Cupboards, doorframe ⇨ fused with a linear vector ⇨ sky/above.	Action process Transactional	The musician and music link to the celestial and the transcendental, somehow setting out direction and meaning.
Man's hands, drumsticks ⇨ fused with diagonal vector ⇨ drumkit.	Action process Transactional	Man plays drumkit. Man makes music.
Man's glance ⇔ articulating a bidirectional linear vector ⇔ museumgoers.	Action process Transactional	Museumgoers participate in the performance.
INTERACTION		
Gaze		
The man is not looking directly at the museumgoer. Occasionally, the man looks directly at the museumgoer.	Offer — occasional demand	The man is offered to the museumgoer as an item of information. Museumgoers can establish an imaginary relationship with the man suggesting reciprocity. The man is inviting museumgoers to come closer.
Frame		
The man is depicted in full The man is depicted in his real size	Medium long shot	The man is close to the museumgoer as if present there in the gallery.
Perspective		
The producer's plane forms an oblique angle with the plane of the man.	Horizontal angle — oblique point of view + frontal point of view	The man is represented as the other in relation to museumgoers. The man is there to be observed as an item of information.
The man is captured at the museumgoers' eye level.	Vertical angle — eye level	A relationship of equality and empathy is prompted — there is no power difference involved.
Modality		
The parameters were assessed by a sensorial coding orientation.	High modality	The images prove highly sensorial thereby triggering sensory engagement and aesthetical appreciation.

COMPOSITION		
Information value		
The man playing drums occupies the centre of the screen.	Central	**The man playing drums is the leading figure.**
Salience		
The man playing drums moves a so is the focus of greatest attention	Man playing drums	**The man playing drums is the most salient.**
Framing		
Man is centred against a doorframe.	There is a doorframe establishing the centre	**The area occupied by the man playing drums is the centrepiece.**

Screen 6

Screen 6 depicts an assortment of people singing and playing guitar on the porch. Below the porch on the green grass, in front of museumgoers, a man sits on a chair under a sunshade and sets off a rocket twice over the course of the whole performance. The screen's main features are exemplified by the following frames:
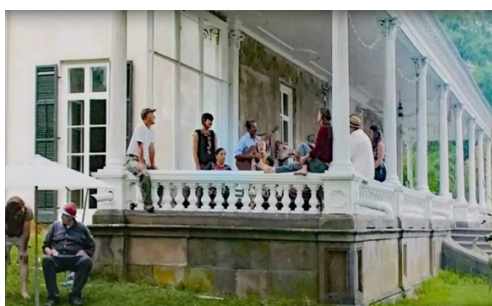
Figure 6.1. — Screen 6: frame 1   Figure 6.2. — Screen 6: frame 2

Screen 6's ideational (representational metafunction)

In terms of conceptual processes, there is an *unstructured analytical* process in which music is the non-represented carrier. What clearly stands out in terms of the attributes is the large group of people singing and playing together and thus ascribing music with the idea of community, wellbeing and with the pleasures of making music together. Each individual person looks relaxed and as if greatly enjoying the moment. Although it is clear these people on the porch are not as significant as those playing and singing inside the house (where each gets their own individual screen), the group emits a strong sense of community, relaxed and pleasurable, to the overall picture. In line with this, their clothes also add to nurturing this atmosphere of the joys and relaxation

particular to summertime. A second *unstructured analytical process* can also be grasped in which music again emerges as a non-represented carrier connoted with the attributes of the setting. The porch is clearly that of a rich and emblematic nineteenth-century mansion, with a balustrade made of white long columns and large windows, all features pointing to the richness and elegance attributed to music.

As regards narrative processes, linear vectors are prominent in every frame. These are articulated by the porch's white pillars and balustrade connecting the ground (actor) up to the sky and above (goal). The bodies of the assorted people (actors) on the porch likewise articulate linear vectors oriented upwards (goal). This upward movement is strongly enhanced twice in frame 2, specifically by launching the rocket (actor) that performs a light vector from the ground to the above (goal). As such, all three situations are non-transactional, action processes in accordance with the Grammar of Visual Design frameworks. In terms of the meanings conveyed by these processes, there is a strong suggestion that the performative musical moment ongoing there interconnects with the celestial and the transcendental as I have similarly reported on several occasions for the aforementioned screens.

Screen 6's interaction (interactional) metafunction

In the case of *gaze*, there is clearly no evidence of visual contact between the depicted participants and the museumgoers for the image substantiates an *offer*. In terms of *frame*, the participants depicted occupy less than half the weight of the frame for the capture is a *very long shot* and suggesting social distance—even the size of the screen cannot counter this as is the case in the previous screens. As regards perspective, in terms of the horizontal angle, the plane of the producer clearly maintains an oblique relationship with that of the porch—actually, the producer's plane runs parallel with the porch's corner—and so the images are captured from an *oblique point of view*. This strategy depicts the participants as the other and museumgoers are addressed so as to feel detached from them, i.e., to contemplate them at a distance. In terms of the vertical angle, the scene is captured from below, i.e., from a *low angle*, which conveys power to the porch and its bystanders.

In terms of *modality*, the screen's image shares the same features as described for the first screen (see the aforementioned explanation), which identify how the image

displays a high modality within the scope of a sensorial coding orientation. This means the screen demonstrates a particular capacity to engage museumgoers in both sensorial and aesthetical terms.

Screen 6's compositional (textual) metafunction

In terms of the organisation of the space depicted, there is a group of people singing and playing guitar on a porch clearly positioned at the centre, in both the vertical and the horizontal planes (frame 1). According to the Grammar of Visual Design (Kress and Leeuwen 2006[1996]), the *information value* for this position is of the greatest and exclusive significance (frame 1). Because the group is comprised of around ten moving people, it is likewise the most *salient* element in the composition. *Framing* analysis distinguishes the porch's vertical and horizontal lines as creating a particular space for people to reunite in. The porch's balustrade is white and salient, and this reinforces the significance attributed to its occupying group. In frame 2, the greatest and exclusive significance of the group is momentarily taken over by the action of the man sat beneath a sunshade in a chair on the grass, on the left side of the image. This action occurs twice throughout the performance. The man launches a rocket and as this action produces surprise and shock, orange fire, smoke and noise, it becomes the focus of greatest attention. In conclusion, the group singing in the porch represents the focus of greatest attention, a leading role which is only momentarily taken over on two occasions throughout the whole performance by the man launching a rocket. The surrounding setting does not compete but rather adds to the aforementioned dominances.

Table 6 — Summary of the Visual Analysis of Screen 6

Specific details depicted	Frame 1 (processes identified)	Frame 2 (processes identified)	Meanings
REPRESENTATION			
Conceptual processes			
Group of people + singing and playing.	Unstructured (music) analytical process	Unstructured (music) analytical process	**Music produces wellbeing, joy and relaxation. Music has communion.**
Porch + balustrade + white long columns + large windows.	Unstructured (music) analytical process	Unstructured (music) analytical process	**Music has richness and elegance.**
Narrative processes			
White porch pillars and balustrade ⇨ fused with a linear vector ⇨ sky/ above.	Action process Non-transactional	Action process Non-transactional	**Music links to the celestial and the transcendental, somehow providing direction and meaning.**
Bodies of assorted people ⇨ articulating a linear vector ⇨ sky/ above.	Action process Non-transactional	Action process Non-transactional	**Musicians and the music they produce link to the celestial and the transcendental, somehow providing direction and meaning.**
Two launches of a rocket ⇨ articulating a linear vector ⇨ sky/ above.	X	Action process Non-transactional	**The whole situation links to the celestial and the transcendental.**
Group of people singing + man playing guitar + body positions adopted.	Unstructured (music) analytical process	Unstructured (music) analytical process	**Music makes communion. Music links to evasion, fruition, pleasure, and transcendency. Music makes the individual and togetherness.**
INTERACTION			
Gaze			
People inside the gallery do not look directly to the museumgoers + man sitting in a chair does not look directly at the museumgoers.	Offer	Offer	**People inside the porch and the man sitting in a chair are there for museumgoers to observe at a distance.**
Frame			
People on the porch + man sitting in a chair occupy less than half the weight of the frame.	Very long shot	Very long shot	**People inside the porch are at a long social distance**
Perspective			
The producer's plane is oblique to the porch's angle.	Horizontal angle — oblique point of view	Horizontal angle — oblique point of view	**The people singing and playing in the porch are represented as 'the other'.**
The porch is captured from below.	Vertical angle — low angle	Vertical angle — low angle	**The porch and its musicians are attributed significance in relation to the museumgoer which translates into museumgoers feeling distant from them.**
Modality			
The parameters were assessed against a sensorial coding.	High modality	High modality	**The images prove highly sensorial thereby stimulating sensory engagement and aesthetical appreciation.**

COMPOSITION			
Information value			
The group singing and playing guitar in the porch is at the image's centre	Central	—	**The group singing and playing guitar is the most significant.**
Man launching a rocket is on the left side of the compositional space	—	Left	**The man launching the rocket is the most significant.**
Salience			
The group of people singing and playing in the porch moves and so are clearly salient. There are no competing saliences.	Group of people singing and playing the guitar	—	**The group singing and playing guitar is the most salient.**
The man launching a rocket creates surprise and shock, orange fire, fire and noise thereby becoming the most salient.	—	Man launching a rocket	**The man launching the rocket is the most salient.**
Framing			
The porch's vertical and horizontal lines create a space for the group to reunite. The porch's whiteness casts light onto the group.		—	**The group singing and playing on the porch is the most significant.**

Screen 7

Screen 7 depicts a man singing and playing a grand piano and a hurdy-gurdy lying on the floor of the main living room. Screen 7 corresponds to the most dynamic room in that it not only stages the musician singing, playing the piano and a hurdy-gurdy—during the performance he is also visited by the other grand piano player—as the room itself becomes the stage for the gathering of all the musicians for the grand finale. After the nine musicians meet up together in this room, all arriving from their own prior rooms, they open up a bottle of champagne and start drinking from the bottle. At this point, Ragnar takes his towel off, with his otherwise naked body becoming visible to the camera, and uses it to clean the champagne that had spilled onto the floor before wrapping the towel around his waist again. The camera then moves outside the house, more specifically to the entranceway connecting this living room with the garden and capturing all the musicians one by one heading out of this door while singing and moving down the hill. Some people from the porch also join the group that continues moving until it is only seen in the far long distance. The screen's main dispositions are exemplified by the following frames:

Figure 7.1. — Screen 7: frame 1

Figure 7.2. — Screen 7: frame 2

Figure 7.3. — Screen 7: frame 3

Figure 7.4. — Screen 7: frame 4

Figure 7.5. — Screen 7: frame 5

Figure 7.6. — Screen 7: frame 6

Figure 7.7. — Screen 7: frame 7

Figure 7.8.— Screen 7: frame 8

Figure 7.9. — Screen 7: frame 9

Figure 7.10. — Screen 7: frame 10

Screen 7's ideational (representational metafunction)

Screen 7 is the most dynamic in the series not only because it features all of the musicians gathering for the grand singing finale but also because, at the very end, the camera moves to follow the musicians leaving the living room and descending down the hill while always continuously singing. Nonetheless, most of the time, there is only the pianist playing the grand piano and a hurdy-gurdy and singing.

Conceptually speaking, there are several analytical processes taking place. Similar to the aforementioned screens, there is a *structural analytical process* in which the musician becomes the carrier of attributes such as the musical instruments and technological supports. The musician's behavior is also very significant in that it not only shows focus, concentration and engagement, as I have detailed for the aforementioned screens, but also displays a clear bohemian style in that, at a certain point in the

performance, the musician smokes a cigar and drinks what I believe is a white drink (in keeping with the type of glass). There are also several *unstructured analytical processes* in which the carrier as *music* can be grasped as follows: the first is depicted by the musician himself representing the unrepresented phenomenon of *music* and thus ascribed with the same attributes as the musician; a second embedded process in which music is ascribed with the richness of the attributes of the overall setting (frames 1 to 6) and with the purity and the beautiful colours of the natural landscape filmed outside the house (frames 7 to 10), in particular the green grass and trees, blue sky and setting sun. These latter are thus ascribing music with the beauty of the green grass and trees, the blue sky and sunset, ultimately fusing with the natural elements. Lastly, there is an *unstructured analytical process* in which music is the non-represented carrier receiving the attributes depicted in the final meeting of the musicians, their behavior and clothes: music as togetherness, communion and the pleasures stemming from this. Music moreover contains joy, evasion, sensuality, instinct, fruition, pleasure, transcendency and bohemianism (frames 4 to 10).

In terms of narrative processes, the grand piano and the pianist are clearly the dominant volumes signposted in frames 1, 2, and 3 and, likewise, the vectors emanating from them are similarly the most evident: I would thus signpost a diagonal vector connecting the grand piano (actor) to the upwards (non-represented goal) and so realising a non-transactional action suggesting music is connoted with something transcendental and celestial; and a linear vector connecting the grand piano's body (actor) to nowhere on the right (non-represented goal) and so realising a non-transactional action. Because this latter vector is pointing to no specific participant on the right, the action is suggesting music is susceptible to enabling people to fulfil their imagination. In terms of the human figures depicted in these three frames, their trunks form vectors pointing to the above and with the pianist's legs vectors pointing to the ground: in short, this articulates music as both something coming from above and so celestial, and from the ground and thus structural.

Frames 4 and 5 depict the gathering of all the musicians in the living room. In both frames, their bodies fuse with linear vectors pointing from the ground (actor) to the upwards (non-represented goal) thereby realising non transactional action processes and suggesting music and musicians are celestial and transcendental. This depiction is then also reinforced in frame 5 by the opening of a bottle of champagne (actor) with its cork stopper shooting upwards to the above (non-represented goal).

Frames 6, 7, 8, 9, and 10 depict the group of musicians moving from the living room to the outside and descending down the hill with the whole group functioning as a moving volume eventually articulating a diagonal vector attributing a sense of dynamism and movement. Frames 8, 9, and 10 depict the group descending down the hill all together. Although this is not the last screen in the room, it is here that the performance ends and so their meanings become particularly significant as they are set out to last longer in museumgoer minds. There are two vectors clearly dominating in frames 8, 9, and 10: one diagonal, articulated by the volume of the trees (actor) and pointing to nowhere (non-represented goal) and a second, also diagonal articulated by the natural sloping descent of the hill (actor) on the left and similarly pointing to nowhere outside the frame (non-represented goal). Both action processes are thus non-transactional. As these two vectors embrace the group of musicians passing by and singing all together, the whole arrangement might suggest a final depicting of the musicians and their music as effective tools for leaving to people's own imagination. Throughout these set of final images, the group's movement is furthermore articulating a linear vector towards the back of the screen until they are almost impossible to make out in a gesture somehow coining "the end."

Screen 7's interaction (interactional) metafunction

In terms of *gaze*, throughout the several frames that comprise screen 7, the participants are clearly represented as an *offer* in that they display no direct eye contact with museumgoers. This means that the scenes unfold for museumgoers to mostly observe from a contemplative point of view. As regards *frame*, due to how in this specific screen, at the end of the performance, the camera moves to follow the whole group reuniting and descending down the hill, the captures vary from a *medium long shot* to a *very long shot*. Similar to that observed for the other screens, nonetheless, the participants seem very close to museumgoers in that they are mostly represented in their real sizes as if present there in the gallery. Forming an exception to this rationale are frames 8, 9, and 10 that capture the participants in a *very long shot*, up until a point when they are almost no longer recognisable in a gesture marking the very end of the installation-work. In the case of *perspective*, in terms of the horizontal angle, I would also signpost several points of view. In frames 1, 2 and 3, covering the main performance in which the man plays the grand piano, the plane of the producer is almost perpendicular to that of the man and so the *point of view is oblique*. In terms of meaning, an oblique point of view suggests

detachment instead of involvement and so a motivation for museumgoers to contemplate the scene. As for frames 4, 5, 6, 7, 8, 9, and 10, I would rather signpost a *frontal point of view*. According to the Grammar of Visual Design, a *frontal point of view* suggests involvement thus prompting museumgoers to feel as if they are enjoying the installation work from within.

Finally, as for the vertical angle, this runs at *eye level* almost the whole time, i.e., during all the time the man plays piano and sings. As the camera starts moving to follow the group descending down the hill, it momentarily deploys a *low angle* before then switching to a *high angle*, a position in which it remains until the very end. In terms of the meaning resulting from these choices, during the majority of the performance, museumgoers are attributed equality and thus eliciting engagement. During final *high angle*, the museumgoers are given power in relation to the depicted participants and so are endorsed as mainly contemplative.

In terms of *modality*, the screen's image shares the features described for the first screen (see the aforementioned explanation) which prove the image attains a high modality within the scope of a sensorial coding orientation. This furthermore means the screen demonstrates a particular ability to engage museumgoers both in sensorial and in aesthetical terms.

Screen 7's compositional (textual) metafunction

In terms of the spatial organisation, although the man is slightly to the left, I would argue that he is rather at the centre. In this particular case, it makes sense to consider a centre occupied by the man in conjunction with the piano. The fact there is plenty of space on the margins, whether on the left, on the right, above or below, points for the pair, man and piano, being one single element positioned in the centre (frames 1, 2, and 3). According to the Grammar of Visual Design (Kress and Leeuwen 2006[1996]), the *information value* for an element occupying a central position refers to exclusiveness, i.e., all attention is concentrated on whatever occupies the central position. The *salience* and *framing* corroborate this in that there is no other element competing with the pair of the man playing the piano nor any lines creating other zones of attention. Frames 4, 5, and 6 retain the same central arrangement, which is now occupied by the gathering of the whole group of musicians (the group singing and playing on the porch do not join this reunion). *Salience* is here awarded to the persons wearing white clothes and to Ragnar, naked apart

from a towel around his waist, with his skin clearly standing out. As regards *framing*, there are no lines separating the group which is for the first time depicted together and so explicitly connected. Frames 7, 8, 9, and 10 present the whole group descending down the hill. As they descend, they move from the left to the centre and remain there while continuing to descend until very small and distant and almost out of human sight. In these final frames, the group is fully surrounded by the green grass with the image suggesting the group's communion with the nature.

Table 7 a— Summary of the Visual Analysis of Screen 7

Specific details depicted	Frame 1 (processes identified)	Frame 2 (processes identified)	Frame 3 (processes identified)	Frame 4 (processes identified)	Frame 5 (processes identified)	Meanings
REPRESENTATION						
Conceptual processes						
Man + musical instrument + technological support + body movements + cigar and white drink.	Structured (musician) analytical process	Structured (musician) analytical process	Structured (musician) analytical process	X	X	The musician has a musical instrument, technology and focus to perform music, as well as letting go of his/her body and soul. The musician is moreover bohemian.
Man + musical instrument + technological support + body movements + cigar and white drink.	Unstructured (music) analytical process	Unstructured (music) analytical process	Unstructured (music) analytical process	X	X	Music has a musician, his/her musical instrument and technological support. Music has specific knowledge and focus. Music has the letting go of the body and soul. Music has evasion, fruition, pleasure, and transcendency. Music is bohemian.
Luxurious decoration and furniture, marbles and golden objects, luminous and golden colours.	Embedded unstructured (music) analytical process	Embedded unstructured (music) analytical process	Embedded unstructured (music) analytical process	Embedded unstructured (music) analytical process	Embedded unstructured (music) analytical process	Music has charm, luxury, and romanticism. Music has refinement.
Gathering of all musicians + opening of a bottle of champagne + smoking + musicians' clothes.	X	X	X	Unstructured (music) analytical process	Unstructured (music) analytical process	Music has togetherness, communion and the pleasures stemming from there. Music has joy, evasion, sensuality, instinct, fruition, pleasure, transcendency and bohemianism.
Narrative processes						
Grand piano's lid ⇨ fused with a diagonal vector ⇨ sky/above.	Action process Non-transactional/ transactional	Action process Non-transactional/ transactional	Action process Non-transactional/ transactional	X	X	Music connotes with the celestial and the transcendental, somehow offering direction and meaning.
Grand piano's body ⇨ fused with a linear vector ⇨ nowhere.	Action process Non-transactional	Action process Non-transactional	Action process Non-transactional	X	X	Music prompts imagination.
Musician's trunk and legs ⇨ fused with a linear/diagonal vector ⇨ nowhere/ sky/ ground.	Action process Transactional/ non-transactional	Action process Transactional/ non-transactional	Action process Transactional/ non-transactional	X	X	Music links to the celestial and transcendental. Music sets structure.
Group of musicians ⇨ fusing with linear vectors ⇨ ground/ upwards.	X	X	X	Action process Transactional/ non-transactional	Action process Transactional/ non-transactional	Music links to the celestial and transcendental. Music sets structure.
Bottle's cork stopper ⇨ fused with a linear vector ⇨ sky/above.	X	X	X	X	Action process Non-transactional	What is going on there refers to the celestial and transcendental.
INTERACTION						
Gaze						
Man does not look directly at museumgoers. Group of people do not look directly at the museumgoers.	Offer	Offer	Offer	Offer	Offer	The man is offered as an item of information for museumgoers to observe. The group of people is offered as an item of information for museumgoers to observe.

Frame						
The man is depicted in full. The man is depicted in his real size.	Medium long shot	Medium long shot	Medium long shot	—	—	**The man is close to museumgoers as if there in the gallery.**
The group of people are depicted at roughly their knees. The group of people are depicted in their real size.	—	—	—	Medium shot	Medium shot	**The group of people are close to museumgoers as if there in the gallery.**
Perspective						
The producer's plane is almost perpendicular to that of the represented participant. The scene is captured so that the piano and the pianist occupy the centre.	Horizontal angle — oblique point of view	Horizontal angle — oblique point of view	Horizontal angle — oblique point of view	—	—	**The man is not part of the museumgoers' worlds. Museumgoers can observe.**
The producer's plane is parallel to the plane of the group of people.	—	—	—	Horizontal angle — frontal point of view	Horizontal angle — frontal point of view	**The group of people is part of museumgoers' worlds. Museumgoers can get involved.**
The participants are captured at the eye level of museumgoers.	Vertical angle — eye level	Vertical angle — eye level	Vertical angle — eye level	Vertical angle — eye level	Vertical angle — eye level	**A relationship of equality and empathy is prompted — there is no power difference involved.**
Modality						
The parameters were assessed against a sensorial coding orientation.	High modality	High modality	High modality	High modality	High modality	**The images prove highly sensorial thereby stimulating sensory engagement and aesthetical appreciation.**
COMPOSITION						
Information value						
The man and piano make a whole occupying the centre.	Centre	Centre	Centre	—	—	**The man and the piano pair is the most significant element.**
The whole group reunites and occupies the centre of the room.	—	—	—	Centre	Centre	**The whole group is the most significant element.**
Salience						
There are no saliences competing with the salience of the man and piano pair.	Man and the piano	Man and the piano	Man and the piano	—	—	**The man and piano pair is the most significant element.**
The whole group reunites and stands out in the centre of the room. The group's members dressed in white stand out. Ragnar's nakedness stands out.	—	—	—	The whole group	The whole group	**The whole group is the most significant element. Participants in white and Ragnar stand out.**
Framing						
There are no lines or colour differentiations creating other zones of significance	No internal frames	No internal frames	No internal frames	—	—	**The man and the piano pair is the most significant element.**
The whole group gathers and stands out in the centre of the room. There are no elements suggesting separation but rather togetherness.	—	—	—	No internal frames	No internal frames	**The whole group is the most significant element. The group is presented as a whole. Identitary cohesion is expressed.**

Table 7b — Summary of the Visual Analysis of Screen 7 (continuation)

Specific details depicted	Frame 6 (processes identified)	Frame 7 (processes identified)	Frame 8 (processes identified)	Frame 9 (processes identified)	Frame 10 (processes identified)	Meanings
REPRESENTATION						
Conceptual processes						
Luxurious decoration and furniture, marbles and golden objects, luminous and golden colours.	Embedded unstructured (music) analytical process	X	X	X	X	Music has charm, luxury and romanticism. Music has refinement.
Green grass and trees + blue sky + sunset.	X	Embedded unstructured (music) analytical process	Embedded unstructured (music) analytical process	Embedded unstructured (music) analytical process	Embedded unstructured (music) analytical process	Music has the beauty of the green grass and trees, blue sky and sunset (thus, music fuses with the natural world).
Gathering of all musicians + opening of a bottle of champagne + smoking + musicians' clothes.	Unstructured (music) analytical process	Unstructured (music) analytical process	Unstructured (music) analytical process	Unstructured (music) analytical process	Unstructured (music) analytical process	Music has togetherness, communion and the pleasures stemming from these. Music has joy, evasion, sensuality, instinct, fruition, pleasure, transcendency and bohemianism.
Narrative processes						
Hill descending format ⇨ fused with a diagonal vector ⇨ nowhere outside the frame.	X	X	Action process Non-transactional	Action process Non-transactional	Action process Non-transactional	Music prompts imagination.
Group of trees ⇨ fused with a diagonal vector ⇨ nowhere outside the frame.	X	X	Action process Non-transactional	Action process Non-transactional	Action process Non-transactional	Music prompts imagination.
INTERACTION						
Gaze						
Group of people do not look directly at museumgoers.	Offer	Offer	Offer	Offer	Offer	The group is offered as an item of information for museumgoers to observe.
Frame						
Group of people are depicted roughly at their knees. Group of people are depicted in their real size.	Medium shot	—	—	—	—	The group is are close to the museumgoer as if present in the gallery.
Group of people are depicted in full. Human figures occupy less than half the weight of frame.	—	Medium long shot	—	—	—	The group is distant from the museumgoer.
Group of people are depicted in full. Human figures occupy less than half the weight of the frame.	—	—	Very long shot	Very long shot	Very long shot	The group is very distant from the museumgoer. The group is very distant from the museumgoer, almost unrecognisable.
Perspective						
The producer's plane is parallel to that of the represented group of people.	Horizontal angle — frontal point of view	Horizontal angle — frontal point of view	Horizontal angle frontal point of view	Horizontal angle frontal point of view	Horizontal angle frontal point of view	The group is represented as part of the museumgoer's world. Museumgoers can get involved.
The participants are depicted at the eye level of museumgoers.	Vertical angle — eye level	—	—	—	—	A relation of equality and empathy is prompted — there is no power difference involved.
The participants are captured from below.	—	Vertical angle — low angle	—	—	—	The participants are attributed power in relation to museumgoers
The participants are captured from the above.	—	—	Vertical angle high angle	Vertical angle high angle	Vertical angle high angle	The museumgoers are attributed power in relation to the participants.
Modality						
The parameters were assessed according to a sensorial coding orientation.	High modality	High modality	High modality	High modality	High modality	The images prove highly sensorial thereby stimulating sensory engagement and aesthetical appreciation.
COMPOSITION						
Information value						
The whole group reunites and occupies the centre of the room.	Centre	—	—	—	—	The whole group is the most significant element.
The whole group descends down the hill moving from left to centre.	—	Left ⇨ centre	Left ⇨ centre	Left ⇨ centre	Left ⇨ centre	The whole group is the most significant element.
Salience						
The whole group reunites and stands out in the room's centre. Group members dressed in white stand out. Ragnar's nakedness stands out.	The whole group	—	—	—	—	The whole group is the most significant element. Participants in white and Ragnar stand out.
The whole group and the green of nature stand out.	—	The whole group green nature	The whole group green nature	The whole group green nature	The whole group green nature	Communion of the group with nature.

Framing					
There are no lines or groups of colours suggesting separation.	No internal framing	—	—	—	—	**The group is depicted as a cohesive whole.**
The whole group and the green of nature stand out. Colour is the medium articulating the two groups.	—	No internal framing	No internal framings	No internal framings	No internal framings	**Communion of the group with nature.**

Screen 8

Screen 8 depicts a woman singing and playing accordion and guitar in what seems to be a living room or a music room. The screen's main dispositions are exemplified by the following frames:

Figure 8.1. — Screen 8: frame 1

Figure 8.2.— Screen 8: frame 2
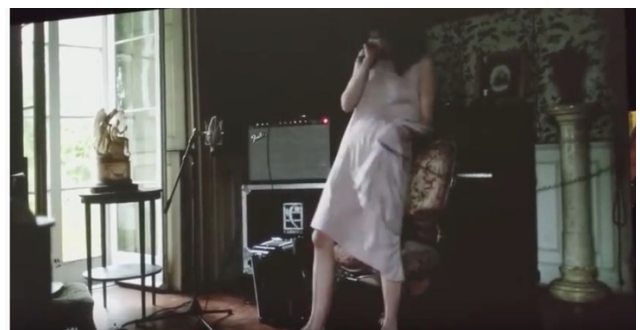

Figure 8.3. — Screen 8: frame 3

Figure 8.4. — Screen 8: frame 4

Screen 8's ideational (representational metafunction)

Similar to the aforementioned screens, conceptual processes again dominate. In detail, I recognise three analytical processes spanning all these frames: a *structural*

analytical facet in which the condition of musician (carrier) is established by means of a set of attributes such as musical instrument, technological support, and concentration and focus. Due to the body positions adopted by this woman in particular, nut as well as her clothes, sensuality and ability to fully engage with the performance, clearly elicit the portrayal of a musician. I also recognise an *unstructured analytical process* in which the non-represented carrier *music* is embedded in the figure of the woman. Due to this, *music* is awarded the same attributes as the musician. Finally, there is an *unstructured analytical process* in which the meaning of the participant *music*, non-represented, is conveyed by the attributes of the setting. Again, I grasp the great richness in the furniture and its materials and colours, the splendour of marble sculptures and plates, and the light issuing from the window. The role of technology is here reinforced by the presence of a Fender amplifier and its eventual box.

In terms of narrative processes, in frames 1, 2, 3 and 4, the dominant vectors are articulated by the woman's body: when seated, her trunk (actor) forms vectors pointing to the above (non-represented goal) and her legs (actor) form vectors pointing to the ground (goal): in short, articulating music to be both something coming from above and so celestial, and from the ground and thus structural. All are non-transactional action processes in that there are no explicit goals.

Frame 2 shows a diagonal vector articulated by the arm/hand of the woman and the guitar's body and neck (actor) pointed to the right side of the image, i.e., to nowhere (non-represented goal). Similar to several aforementioned occasions, this is a non-transactional action process both indicating the woman makes music and suggesting music as a tool for fostering imagination. Finally, the woman's position in relation to the viewer is mostly diagonal and so her glance cannot be said to be articulating a reactional process.

Screen 8's interaction (interactional) metafunction

In terms of *gaze*, throughout all the frames (1, 2, 3, and 4), there is no direct visual contact between the woman and museumgoers and so the depictions correspond to an *offer*. According to the Grammar of Visual Design, offer is a strategy which leads museumgoers to observe the woman depicted as an item of offered information. In terms of frame, all the frames report a *medium long shot* in which the woman is depicted in full.

Although the theory mentions how this strategy does not allow great contact from the museumgoers, that the screen is so very large, and the woman is depicted in her real size, nevertheless endows a strong sense of proximity.

As regards perspective, in terms of the horizontal angle, the camera is fixed and forms an angle with the plane of the woman for an *oblique point of view*. In terms of meaning, this prompts museumgoers to adopt an attitude of detachment towards the image and to contemplate it rather than engage with it. The participant thereby represented is moreover understood as an item of information. In terms of the vertical angle, the camera is positioned at the *eye level* of museumgoers thereby nurturing a relationship of equality and inviting the engagement of museumgoers.

In terms of *modality*, the screen images share the features described for the first screen (see the explanation above), which convey how the images obtain a high modality within the scope of a sensorial coding orientation. This means the screen images demonstrate a particular ability to engage museumgoers both in sensorial and in aesthetical terms.

Screen 8's compositional (textual) metafunction

The organization of the space revolves around the pair of the woman and her instruments (accordion and guitar) clearly occupying a central position (frames 1, 2, and 3). The *information value* of the centre is that of significance and power. The woman and instrument pair are thus endowed with primacy, a role corroborated by the options regarding *salience* and *framing*. In fact, in terms of salience, there are no elements competing with the dominance of the woman and her instrument. The window radiates daylight directly and illuminating the area in which the woman and instrument pair are placed. Additionally, in terms of framing, there are no meaningful internal separations. The woman is therefore depicted as in consonance with the evolving ambient.

Table 8 — Summary of the Visual Analysis of Screen 8

Specific details depicted	Frame 1 (processes identified)	Frame 2 (processes identified)	Frame 3 (processes identified)	Frame 4 (processes identified)	Meanings
REPRESENTATION					
Conceptual processes					
Woman + musical instrument + technology + body positions + relaxed clothes.	Structured (musician) analytical process	Structured (musician) analytical process	Structured (musician) analytical process	Structured (musician) analytical process	**The musician has a musical instrument, technology and the focus to perform music as well as letting go of his/her body and soul.**
Woman + musical instrument + technology + body positions + relaxed clothes.	Unstructured (music) analytical process	Unstructured (music) analytical process	Unstructured (music) analytical process	Unstructured (music) analytical process	**Music has a musician, his/her musical instrument and technology. Music has specific knowledge and focus. Music has the letting go of the body and soul, music has sensuality. Music has evasion, fruition, pleasure, and transcendency. Music has the individual and togetherness.**
Exquisite decoration, objects and colours. Technological devices.	Embedded unstructured (music) analytical process	Embedded unstructured (music) analytical process	Embedded unstructured (music) analytical process	Embedded unstructured (music) analytical process	**Music has charm, luxury, and romanticism. Music has technology.**
Narrative processes					
Woman's trunk and legs ⇨ fused with a linear/diagonal vector ⇨ nowhere/ sky/ ground.	Action process Non-transactional/ transactional	Action process Non-transactional/ transactional	Action process Non-transactional/ transactional	Action process Non-transactional/ transactional	**Music and the musician are connoted with the celestial and the transcendental thus offering direction and meaning.**
Woman's arm and hand ⇨ articulating a linear/ diagonal vector ⇨ guitar ⇨ articulating a linear/ diagonal vector ⇨ nowhere on the right.	X	Action process Transactional/ non-transactional	X	X	**The woman plays guitar. The woman makes music.**
INTERACTION					
Gaze					
The woman makes no direct contact with the museumgoer.	Offer	Offer	Offer	Offer	**The woman is offered as an item of information for museumgoers to observe.**
Frame					
Woman is depicted in full. Woman is depicted in her real size.	Medium long shot	Medium long shot	Medium long shot	Medium long shot	**The woman is close to the museumgoer as if there, present in the gallery.**
Perspective					
The producer's plane is oblique to that of the represented participant. The arrangement seeks to ensure the represented participant occupies the centre.	Horizontal angle — oblique point of view	Horizontal angle — Oblique point of view	Horizontal angle — Oblique point of view	Horizontal angle — Oblique point of view	**The woman is represented as the other for museumgoers to contemplate as an item of information.**
The woman is captured at the eye level of museumgoers.	Vertical angle — eye level	Vertical angle — eye level	Vertical angle — eye level	Vertical angle — eye level	**A relation of equality and empathy is prompted — there is no power difference involved.**
Modality					
The parameters were assessed according to a sensorial coding orientation.	High modality	High modality	High modality	High modality	**The images prove highly sensorial thereby stimulating sensory engagement and aesthetical appreciation.**
COMPOSITION					
Information value					
The woman is depicted singing and playing an instrument at the centre of the image.	Centre	Centre	Centre	Centre	**The woman and instrument pair are the most significant elements.**
Salience					
The woman moves to play, sing and dance. She is the subject of most interest.	Woman and instrument	Woman and instrument	Woman	Woman	**The woman and instrument pair are the most significant elements.**
Framing					
There are no internal lines or colour contrasts producing separations	No internal framings	No internal framings	No internal framings	No internal framings	**The woman and instrument pair are the most significant elements.**

Screen 9

Screen 9 depicts a man singing and playing electric guitar in a bedroom. The man is sat on a bed and next to him a woman lies in the same bed with her back naked. Close to the end, the woman rises naked from the bed, puts on a satin sleep shirt, gives the man her arm before both move towards the living room for the grand finale. The screen's main dispositions are exemplified by the following frames:

Figure 9.1. — Screen 9: frame 1

Figure 9.2. — Screen 9: frame 2

Figure 9.3. — Screen 9: frame 3

Screen 9's Ideational (representational metafunction)

Similar to the aforementioned screens, the conceptual processes realised by human figures stand out so that our attention is immediately directed towards them. In frame 1, I recognise a *structured analytical process* in which man/musician (carrier) is attributed with a musical instrument and technological support. The musician's behavior moreover shows concentration and focus but not the letting go as reported by several other screens. There is also an *unstructured analytical process* in which music is the carrier, non-represented, supported by the figure of man and so the recipient of the same attributes as the musician. Frames 2 and 3 show an *unstructured analytical process* in which *music* is the carrier attributed with sensuality and individual exposition (trustworthiness) by means of the nudity of the woman. Finally, I recognise an

unstructured analytical process across the three frames in which the carrier *music* is attributed with the setting's qualities. Mention must be made of the bed which refers to intimacy and sex, to technological devices which point to music depending on technology, to a sense of antiquity and to the vivid colours, which suggest romanticism and joyfulness.

In terms of narrative processes, frame 1 encodes two diagonal vectors fused on the left with the chair and on the right with the loudspeaker, both coming from the screen's corners (non-represented actor) and pointing to the musician playing the guitar (goal) thereby articulating non-transactional action processes. Although the man is in a frontal position to the museumgoer, he mostly looks downwards to his guitar. As such, there is no reaction process with museumgoers.

As they appear from the nowhere outside the screen, these vectors may be articulating the idea that the musician is imaginative. The figure of the musician moreover becomes a subject of greater attention. His hand, together with the guitar's body and neck (actor), is also fused with a vector pointing to the loudspeaker (goal) which can be mentioned as articulating two transactional action processes: one, referring to the man's hand playing the guitar and thus conveying the idea that the man plays the guitar and makes music; and a second one referring to the man's hand and the guitar's body and neck together all pointing to the loudspeaker and thus reinforcing the notion that man makes music.

Frames 2 and 3 both show a diagonal vector fused with the bed and the loudspeaker (actors) and pointing to no mentioned goal (non-represented goal) on the right thus suggesting music and lying in bed as a matter of imagination.

Finally, as both man and woman move towards the door, they seem to be articulating the moving vectors that introduce the final section of the performance.

Screen 9's interaction (interactional) meanings

In terms of *gaze*, in frame 1, both the man and the woman do not make any direct visual contact with museumgoers and despite the fact that the man's plane runs parallel to that of museumgoers. The image is thus an *offer* in which the participants are offered for observation. The woman, in particular, is clearly depicted for observation for she lies naked on the bad, her back turned towards museumgoers resulting in no direct visual

contact at all. Frames 2 and 3, which depict the movement of both participants—before leaving, the woman stands up naked and puts on a satin sleeping shirt—as they leave the room to join the group in the living room, also feature the same strategy. In terms of *frame*, all the images captured subscribe to a *medium long shot* which is not usually interpreted to be particularly close. Social distance is nonetheless here clearly compensated for by the large size of the screen thereby allowing the participants to be represented in their full size and so prompting the sense they are present in the gallery with museumgoers.

In terms of perspective, in frame 1, I signpost two points of view: whereas the man playing the electric guitar is in a frontal plane in relation to the plane of the producer thus displaying a *frontal point of view*, the woman lying in the bed realises an *oblique point of view*. The man is thus depicted as part of the world of museumgoers and the woman as the other who is there as an item of information and to be observed. In frames 2 and 3, both the man and woman are in an *oblique point of view.*

Screen 9's compositional (textual) metafunction

In terms of the organization, for the majority of time, the whole screen gravitates around the man placed at the centre playing guitar (frame 1). The woman lying naked on the bed is also at the centre but behind the man. Despite the attention the visible parts of her nude body might attract, she is clearly, during most of the performance, on a second plane. The man playing guitar is thus the leading figure, i.e., the figure which has greater *information value* throughout the performance. In frame 2, as the woman stands up naked and puts on a white satin sleeping-shirt, her nudity stands out and she becomes the leading figure. The man is moreover wearing a black t-shirt and blue jeans as his image become deluded in relation to hers. In terms of *salience*, both the man and the woman stand out because of their movements. The lighting of the room is also significant in terms of the *saliences* thereby created. In detail, the two lamps create a warmer and lighter zone at the centre where the man is seated. Finally, in terms of *framing*, there are no significant lines creating separations. There are rather diagonal lines formed on the left by the chair and on the right by the loudspeaker creating the sense of the man being a point of fugue, a strategy which reinforces his primacy. The man is close to the woman while he performs and she rests and, as they leave the room, they depart arm in arm.

Screen 9 — Summary of the Visual Analysis of Screen 9

Specific details depicted	Frame 1 (processes identified)	Frame 2 (processes identified)	Frame 3 (processes identified)	Meanings
REPRESENTATION				
Conceptual processes				
Man + musical instrument + technology + body positions	Structured (musician) analytical process	X	X	**The musician has a musical instrument, technology and focus to perform music.**
Man + musical instrument + technology + body positions	Unstructured (music) analytical process	X	X	**Music has a musician, his/her musical instrument and technology. Music has specific knowledge and focus.**
Woman's nudity	X	Unstructured (music) analytical process	Unstructured (music) analytical process	**Music contains exposition (trustworthiness) and sensuality.**
Bed + technological devices + vivid colours and light	Embedded unstructured (music) analytical process	Embedded unstructured (music) analytical process	Embedded unstructured (music) analytical process	**Music has intimacy, romanticism, and joyfulness.**
Narrative processes				
Screen corners/ nowhere ⇨ fused with a diagonal vector ⇨ musician	Action process Non-transactional	X	X	**The musician prompts imagination.** **The musician and his music are given greater prominence.**
Man's hand ⇨ articulating a linear/ diagonal vector ⇨ guitar ⇨ articulating a linear/ diagonal vector ⇨ loudspeaker	Action process Transactional	X	X	**The man plays guitar.** **The man makes music.**
Bed/ loudspeaker ⇨ fused with a diagonal vector ⇨ nowhere	X	Action process Non-transactional	Action process Non-transactional	**Music and lying in the bed prompt imagination.**
Man and woman moving towards the door				**Introducing the final section.**

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INTERACTION				
Gaze				
Man and woman make no real contact with the museumgoer	Offer	Offer	Offer	**The man and the woman are offered as items of information for museumgoers to observe.**
Frame				
Man is depicted in full Man and woman are depicted in their real size	Medium long shot	Medium long shot	Medium long shot	**The man and the woman are close to the museumgoer as if present there in the gallery.**
Perspective				
The producer's plane is parallel to the man's plane and oblique to the woman's plane	Horizontal angle — frontal in relation to the man's plane and oblique in relation to the woman's plane	Horizontal angle — frontal in relation to the man's plane and oblique in relation to the woman's plane	—	**The man is represented as part of the museumgoer's world. Museumgoers can get involved. The woman is represented as the other and an item for museumgoers to observe.**
The producer's plane is oblique to the man and woman's plane	—	—	Oblique in relation to the man and woman's plane	**Man and woman are represented as items of information for museumgoers to observe.**
Man and woman are captured from a moderate high angle	Vertical angle — moderately high	Vertical angle — moderately high	Vertical angle — moderately high	**Museumgoers are given power over the represented participants. Observation is allowed and a certain lack of involvement.**
Modality	**Modality**	**Modality**	**Modality**	**Modality**
The parameters were assessed according to a sensorial coding orientation	The parameters were assessed according to a sensorial coding orientation	The parameters were assessed according to a sensorial coding orientation	The parameters were assessed according to a sensorial coding orientation	The parameters were assessed according to a sensorial coding orientation
COMPOSTION	**COMPOSTION**	**COMPOSTION**	**COMPOSTION**	**COMPOSTION**
Information value	**Information value**	**Information value**	**Information value**	**Information value**
The man playing guitar is at the centre of the image. The woman lying on the bed is also at the centre.	The man playing guitar is at the centre of the image. The woman lying on the bed is also at the centre.	The man playing guitar is at the centre of the image. The woman lying on the bed is also at the centre.	The man playing guitar is at the centre of the image. The woman lying on the bed is also at the centre.	The man playing guitar is at the centre of the image. The woman lying on the bed is also at the centre.
The woman stands up and dresses and both leave the room.	The woman stands up and dresses and both leave the room.	The woman stands up and dresses and both leave the room.	The woman stands up and dresses and both leave the room.	The woman stands up and dresses and both leave the room.
Salience	**Salience**	**Salience**	**Salience**	**Salience**
The man playing guitar moves and so becomes clearly salient. The two lamps warmly illuminate the man's area.	The man playing guitar moves and so becomes clearly salient. The two lamps warmly illuminate the man's area.	The man playing guitar moves and so becomes clearly salient. The two lamps warmly illuminate the man's area.	The man playing guitar moves and so becomes clearly salient. The two lamps warmly illuminate the man's area.	The man playing guitar moves and so becomes clearly salient. The two lamps warmly illuminate the man's area.
The woman's body and white sleep shirt stand out in relation to the man dressed in black and blue. The two lamps warmly illuminate the man and woman's area.	The woman's body and white sleep shirt stand out in relation to the man dressed in black and blue. The two lamps warmly illuminate the man and woman's area.	The woman's body and white sleep shirt stand out in relation to the man dressed in black and blue. The two lamps warmly illuminate the man and woman's area.	The woman's body and white sleep shirt stand out in relation to the man dressed in black and blue. The two lamps warmly illuminate the man and woman's area.	The woman's body and white sleep shirt stand out in relation to the man dressed in black and blue. The two lamps warmly illuminate the man and woman's area.
Framing	**Framing**	**Framing**	**Framing**	**Framing**
There are no lines realising separations. The diagonal lines realised by the chair and by the loudspeaker create a point of fugue in which the man is placed.	There are no lines realising separations. The diagonal lines realised by the chair and by the loudspeaker create a point of fugue in which the man is placed.	There are no lines realising separations. The diagonal lines realised by the chair and by the loudspeaker create a point of fugue in which the man is placed.	There are no lines realising separations. The diagonal lines realised by the chair and by the loudspeaker create a point of fugue in which the man is placed.	There are no lines realising separations. The diagonal lines realised by the chair and by the loudspeaker create a point of fugue in which the man is placed.

Despite the representational significance of each screen that I have just detailed, it is moreover crucial to analyse how these nine screens interplay to build up a larger representation of *music* and *making music*. This means heralding the significance of both the space and the museumgoers kinesthetic behaviour.

The fact that the nine screens are broadly symmetrically laid out in the gallery's 3D space, i.e., all equal in size and at roughly an equal distance to each other, allows the installation-work as a whole to achieve a conceptual, classificational process, specifically a *classificational covert taxonomy*. Here, *music* and/or *making music* constitutes an overarching, non-represented, participant (superordinate) before which, in conjunction with each screen's contents, museumgoers play a subordinate role. The whole installation-work thus carries out a representation of the hypertext *music* and/or *making music*. This representation is, among those I have flagged, the strongest in that it is articulated by virtually all the signposted processes. Drawing on Ravelli and McMurtrie (2016), who have provided significant tools for spatial discourse analysis, I argue that this conceptual representation of the hypertext *music* and *making music* is moreover reinforced by the very fact that the nine screens are rectangular. For these authors, rectangular forms embody stative declarations for the regular, symmetrical, solid and static features of the nine screens that convey how the installation-work is undertaking an overarching, non-dynamic conceptual statement about *music* and *making music*. This statement is, nonetheless, counterbalanced by the dynamic portrayal realised by the video contents. To sum up, *music* and *making music*'s are here portrayed, on the one hand, statically by means of the screens' shapes and by the layout of the evolving space; on the other hand, dynamically, by the moving images forming the contents of the nine screens.

Space is moreover fundamental to *The Visitors* as it allows for the depiction of an enveloping performance. That each screen displays coordinated filmic images in a tridimensional space, as if each musician is placed within the actual gallery, allows the whole installation-work to mimic the performative quality inherent to the activity of making music. In addition, the fact the gallery is large (maybe 10X10 meters) constitutes a predisposition for the installation-work to be used performatively by museumgoers so as to foster community values. Ultimately, the installation-work either displays self-identity significance (by means of the contents of individual screen and the interpretation of each museumgoer) and togetherness (by an interplay of all the screen contents and museumgoer responses together adding to that going on there).

Contextual spatial analysis moreover yields other relevant results. To start with, *The Visitors* is exhibited in a separate hall of the museum where darkness is maintained by means of curtains thereby excluding other forms of stimulation to yield specific representational effects: the installation-work is attributed with the exclusivity of wonders

with museumgoers being given the sense they have good fortune in discovering it. On the threshold, i.e., a transactional stage before entering the gallery proper, museumgoers are provided with a sketch of the installation-work and a label fulfilling the functionality of a preface serving the social function of welcoming museumgoers.

Other circumstances falling into the realm of spatial connotations should also be mentioned. The very fact the installation-work *The Visitors* is displayed inside a museum gallery as part of a sound art exhibition enables it to be identified as a sound artwork. As the museum in question is the highly renowned SFMoMA, this places the installation-work at a very high artistic level and prompts its appreciation primarily from the aesthetic point of view and less as a form of leisure or entertainment. In addition, the installation-work (and the *Soundtracks* exhibition itself) is exhibited on the seventh floor, currently the highest floor of the museums, which conveys the idea that the work and/ or the artist is highly valued (quote).

Spatial analysis also entails examining what museumgoers can do in the gallery, hence, how they behave kinetically in that the individual behaviors and social geometries adopted translate into meaning. In detail, I have observed museumgoers tending to adopt informal behaviors, both individually and in groups. That there are no barriers between the majority of the videos maximises contact and the creation of personal paths to be left to the intuition of each museumgoer. Only the wall in the middle of the gallery establishes a division and yields some spatial organization. Social distance is likewise minimised as there is no furniture inside. As such, depending on the concentration of museumgoers, some people stood still or sat down on the floor or even, in some cases, lay down (mainly museumgoers who seemed to be most appreciating the installation-work); in some cases, they danced and sang, moved freely, established contact eye with one another and created a bold energetic ambience.[108] Vectors developing between museumgoers and the contents of the nine screens allowed for museumgoers to develop their own pathways and to perform the narrative process of walking. The fact music is playing moreover prompted museumgoers to sing and thereby performing the narrative process of singing. The beauty of the films displayed by the nine screens encouraged museumgoers to look and correspondingly undertaking the process of looking. On some narrative occasions or sequences across the screens (as is the case with the final congregation on screen 7's

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[108] These behaviors were moreover prompted by how there were no proper seats in the gallery.

living room), nonetheless, greatly captivated museumgoers and prompted them to follow a path in a group. The space, in conjunction with the images and music, furthermore enabled people to associate with each other and achieving the performance of communal interactions. Interviews have also corroborated this and likewise point to museumgoers finding a space for their subjectivities and introspection. Furthermore, people all being on the same level inside the gallery also suggests the installation-work's space decreases social distance and broadly mitigating relations of power. In line with this, *The Visitors*' contents can easily be considered to be multifunctional.

No staff are not visible inside the gallery, which might induce museumgoers to engage freely in that they are protected from the surveillance of museum guards. In addition, the lack of any specific surveillance inside the gallery, the lack of any strict pathways for museumgoers to perform or any limitations on entrance meant that the spatial arrangements engineer people to behave with a certain degree of freedom.

Although my observations have proven the figure of the *compliant reader* dominate, *resistant readings* might have occurred as well—although the interviews with museumgoers do not suggest this. Ultimately, the installation-work is itself multifunctional (museumgoers are enabled to sit and move and sing and look and hear), therefore, the space is hybrid in keeping with how several social activities are possible. According to Ravelli and McMurtrie (2016, 35), the fact that an institution is prompting hybridisation suggests it is encouraging community. To sum up, the significance of the museumgoers is, it may clearly be argued, highly valued in *The Visitors* in keeping with how its spatial arrangement noticeably encodes an idea of free movement, self-identity, and community.