

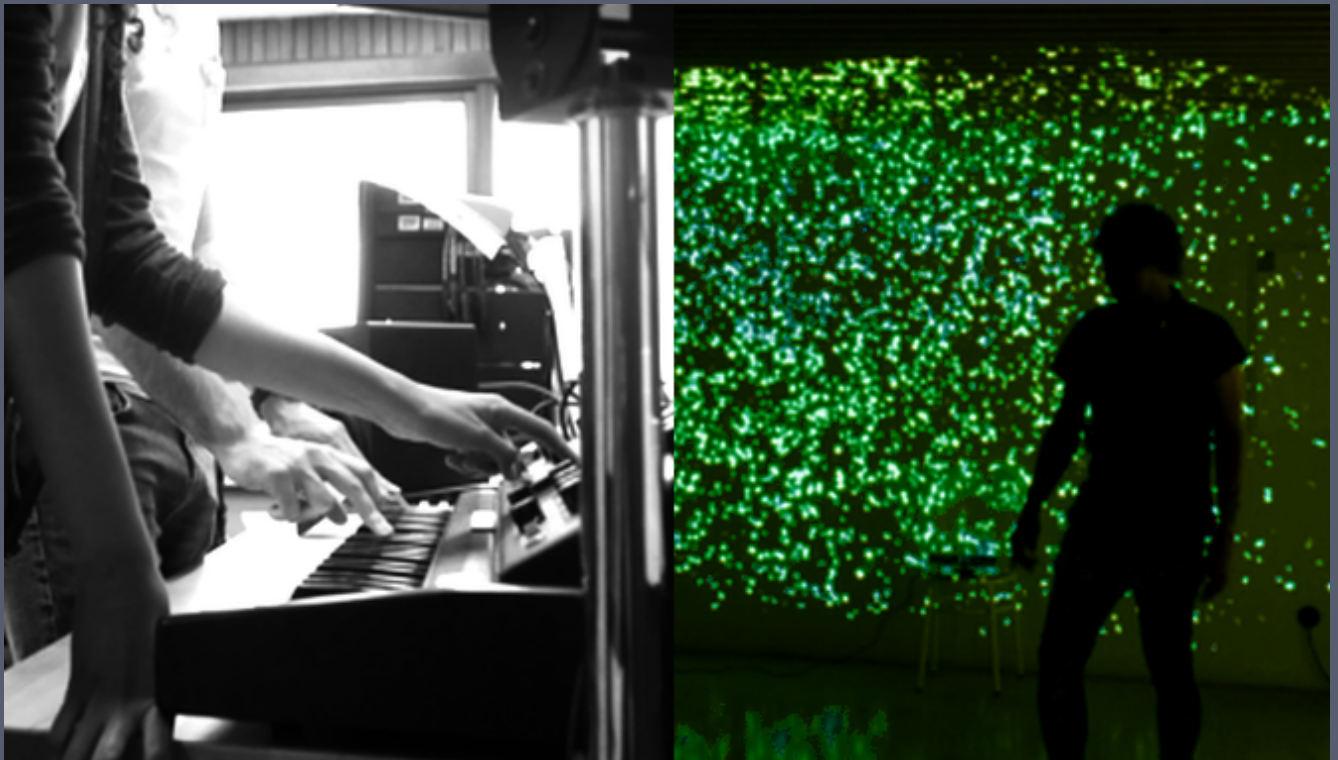
# NOVA

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## Musical Performance as Creation

INTERNATIONAL CONFERENCE PROCEEDINGS

**EDITED BY**

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RICCARDO WANKE

# Musical Performance as Creation (I)

International Conference Proceedings

Edited by Filipa Magalhães, Isabel Pires & Riccardo Wanke

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## **Musical Performance as creation**

International Conference Proceedings

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Edited by Filipa Magalhães, Isabel Pires & Riccardo Wanke

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# Preface

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*Musical Performance as Creation* was the chosen theme for the NOVA Contemporary Music Meeting — 2<sup>nd</sup> Edition, held in Colégio Almada Negreiros, in Lisbon, from 5-7 May 2021, with the purpose of discussing musical performance today. From the concert hall to streaming platforms, from the street to television, from live music to recordings, the act of performance is a creative one that transposes the creator’s musical ideas and moods to the audience. Regardless of the multiplicity of genres, media and contexts — including the unexpected and terribly challenging situation of the Covid-19 pandemic — discussion about performance is essential. Moreover, consideration of musical performance as a creative act includes staging, the diversity of techniques and skills, the technologies involved, performance spaces, auditory contexts, accessibility and the public’s willingness to engage, and many other variables. In light of these concerns, the following issues arise: what does it mean to perform music day today, and in what sense can performance be seen as a creative act? What is the role of the performer in today’s musical world? Can we continue to talk about “performing music” or should we consider using other expressions according to each particular situation? What is the role of musical performance in the context of a museum exhibition, sound art event or art installation? Can a sound artist be considered a music performer? Can real-time coding or free improvisation be considered forms of musical performance? Can the creativity embodied in musical performance influence the development of communities and societies? How is musical performance relevant in situations of social crisis and economic hardship? The following collection of papers seeks to respond to these complex questions around the performance of music.

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Highlighting the conference’s thematic focus on “Performance as creation”, Philip **Auslander**, the opening keynote speaker, delves into the ongoing discussion surrounding John Cage’s iconic piece, *4’33”*. Auslander introduces a captivating viewpoint that places the performance and the performer as a central “musical persona” within the discourse. Adopting a broader perspective, Carlos Alberto **Augusto**, the closing speaker at the conference, extends the concept of performance to everyone by considering the human capacity for design and the way people are capable of analysing problems and finding solutions to them. Drawing inspiration from Papanek’s writings, Augusto raises the issue of social responsibility among music designers by asking how contemporary music can drive change, and how it can offer listeners the opportunity to experience the sublime while fostering a more positive social environment for all.

Caroline **Wilkins** reflects on how creative thinking within the performing arts has evolved due to the impact of new techniques and approaches, using examples such as Sharon Gal’s project *Sound Out*, the work of artist Robert Rauschenberg, and the ensemble Stegreif Orchestra. She places these reflections within the context of “Performance Philosophy”, where thought and action merge, and the creative act is seen more as a self-generating action. Monika **Karwaszewska** proposes that the notion of *ekphrasis* may be relevant for research into intermedial works of art. The author explores the relationship between specific verbal and non-verbal media and investigates the concepts of *ekphrasis* and artistic *inphrasis* as applied to the interpretation of contemporary intermedia works. In contrast, Martin **Laliberté**’s reflections centre on the dynamics of the music studio, tracing its roots as an electroacoustic sound laboratory. His contributions offer a fascinating journey through the evolution of techniques,



technologies, approaches, and perspectives on music and sound composition. Using a wide range of examples, he vividly illustrates how the music studio functions as a living, complex ecosystem, acting as a co-creative agent that necessitates an ecological approach. This prompts a deeper reflection on the relationship between the subject (the composer) and their environment (the studio). Dimitris **Andrikopoulos** and Nuno **Aroso** bring their direct creative experience to the discussion. They describe the creation of two pieces: *Solo I*, a work for multipercussion that they made together, and *Solo for Two*, a duo for two multipercussion sets composed by Andrikopoulos. Their contribution not only highlights the way they influenced each other in the realisation of the work — from the creation of basic composition parameters right up to the final form — but also how and when the computer used algorithmic processes to generate compositional material, so acting as a third individual in the relationship of composer-interpreter.

With a continued emphasis on the role of the interpreter, Rachel N. **Becker** takes a unique approach by examining the bodily aspects of oboe performance in the context of Antonio Pasculli's *Fantasia per oboe sopra motivi dell'opera "Gli Ugonotti" di G. Meyerbeer*. Specifically, she delves into the virtuosity displayed in oboe performance and its connection to the nineteenth century conception of a woman's body. Through the utilisation of historical sources, instruction manuals, and a thorough analysis of Pasculli's composition, Becker explores the intricate relationship between musical compositions and the physicality inherent in their execution. Her examination encompasses a multifaceted exploration that covers elements of performance technique, perceptual analysis, historical context, and ethnographic research, providing a comprehensive perspective on the topic.

Fellipe **Martins**, Giovanna **Airoldi**, Lucia **Esteves**, Lucas **Quinamo** and Lucas **Torrez** present the unique example of *Nácar* (2020), an audiovisual improvisational piece for cello and electronics realised as a collective collaboration during the period of social isolation brought about by the Covid-19 pandemic. Drawing on Simondon's notion of "invention", the authors report the step-by-step creation of a collaborative piece which combines drawings, compositions, computer processing, and traditional instruments. They then explore the limitations and possibilities of their artistic object, *Nácar*, seeing it as an invention that generates sounds and images created within a technology-mediated context. It is an artistic creation that can be experienced through a computer, without the performer being physically present. João **Fernandes**, on the other hand, discuss about the technological support to the improvisational performance at a distance and namely in the context of pandemics. Fernando dos **Santos**, Guilherme **Ribeiro** and Laiana **Oliveira** also explore the processes of collaborative creation, in this case in *El ojo de la mujer* (2018), a work for a singer and a saxophonist which is based on images. The authors reflect on how poetry, composition and performance are related and blended by considering how different elements, sound structures, experiences and techniques are used in new creative forms of listening.

In his paper, Nicola **Bizzo** delves into the visual aesthetic of Queen, the iconic British pop-rock band. He explores the band's iconography and its relationship with movies and video games, and highlights the active involvement of the band members in the design of their visual product. This active engagement in the visual representation of their music sets Queen apart, as it showcases a unique form of creative agency at the intersection of sound and image.

Bruno **Pereira** creates the performance *Inner Gesang* based on his own artistic research methodology, arguing that the thought-voice-body system is deeply interconnected; "voice as voice" leads to an expressiveness that is closer to the intended inner song; it is a spiral relationship between making and critical reflection.

Carmen **Noheda** is also concerned with creative interconnections in a study of *La ciudad de las mentiras* (City of Lies), a piece of music theatre co-authored by the composer Elena Mendoza and stage director Matthias Rebstock. Noheda considers the challenges of creating music theatre, offering perspectives on multidisciplinary collaboration, performance as creation, creative processes and production at Teatro Real.

The voice as a means for creation in the context of contemporary experimental arts is the topic of Sara **Belo**'s contribution introduces the concept of "Vocal Theatre" to designate a type of post-dramatic theatre performance, a sort of "postopera", which has a fragmented, non-narrative and multidisciplinary character. Its driving creative force is the voice, and the exploration of its multiple facets, which is always interrelated with theatricality and in dialogue with other artistic fields. The voice, the ontological mark of the singularity of the vocal artist, is, in this context, embodied and becomes part of the performer's artistic positioning.

Pavlos **Antoniadis**, Aurélien **Duval**, Jean-François **Jégo**, Frédéric **Bevilacqua** and Makis **Solomos** present an augmented reality project based on the work *Evryali* for solo piano by Iannis Xenakis. Reflecting the project's interdisciplinary structure, the performance space is transformed into a hybrid environment composed of physical, symbolic and virtual elements, aiming to integrate the public in an immersive environment.

Teresinha **Prada** turns to analytical issues in her study of *Blirium* (1965) by Gilberto Mendes, a work that incorporates multiple musical representations, such as tonal and atonal sonorities, and the deliberate use of musical citations. Prada reflects on how the renewal of this collaborative work with virtual media can challenge performers today, both at an aesthetic-cultural and a technical level. The starting point for Annini **Tsioutis** is an interview with the composer Christina **Athinodorou** about the performance *Re:Mains for Multi-Pianist*. The composer's creative process is explored as well as the pianist's learning process. Tsioutis argues that understanding the composer's processes improves the pianist's performance ability and cognitive environment, enabling the exploration of new repertoire and concert programming and also facilitating communication with the audience.

The paper by Jorge **Graça** and his colleagues gives us a case study of Companhia de Música Teatral and their piece *O Céu Por Cima de Cá*, which was produced during the pandemic. This serves as a remarkable illustration of a collaborative creative process involving artists and performers, even amidst the challenging circumstances brought about by pandemic restrictions. The focus of their effort is on showing the artists' ability to integrate various aspects of creation, embracing embodiment, collaboration, immersion, and deep connections with physical, cultural, and historical contexts.

In turn, Caroline **Boë**'s thought-provoking paper explores the positioning of the music genre of soundscape in the broader discourse of performative creation. She delves into research-creative action-composition as a means to deconstruct the conventional notion of music pieces and the idea of the composer-genius. Boë highlights how sound walks elevate the act of listening to the level of activism, enhancing perceptual auditory abilities and fostering a sense of community belonging. Moreover, she emphasises that sound walks serve as a creative-aesthetic performance, engaging collective and shared imagination in a significant way.

Reflecting on a particular exhibition, Maria de Fátima **Lambert** and Paula **Freire** seek to answer the research question: what is the role of music in museum exhibitions? They present a case study of the curatorial project *From home towards a world...*, shown at the 21st Bial International de Arte de Cerveira, arguing that the project, which links literature, painting and music, offers new approaches for future museum exhibitions. In an exploration of relationships in performances, José **Neto**, Jessica **Silva**, Luís **Montanha** and Silvio **Ferraz** call into question the traditional relationship between composer and performer, aiming to demonstrate how

musical interpretation can subvert the creation and conception of the work. The authors examine these issues through the creative processes of the work *Chapada dos Guimarães in Brazil*. Turning to contemporary Portuguese music, Maria Inês **Pires** exposes the difficulties faced by composers in the Portuguese music industry, which led some composers to create their own music groups in the 1970s and 1980s. Pires' paper analyses the current state of knowledge about Portuguese musical ensembles dedicated to contemporary repertoire, drawing together existing sources in order to understand the Portuguese music scene at the beginning of the 21st century.

Fernando **dos Santos** explores the social and musical interactions in ensemble performances within the Ibero-American music tradition. He delves into the case of ABSTRAI ensemble, thoroughly discussing and analysing the process of creating a contemporary music piece, spanning composition, notation, instruction, experimentation, interpretation, and final performance. The ABSTRAI ensemble holds a significant place in the context of Brazil, as it symbolises a collective striving to harmonise and engage with intricate societal transformations and the realm of contemporary experimental music. In doing so, the group contributes to the emergence of new audiences. Their cooperative teamwork serves as a noteworthy example, inspiring the production, interpretation, and realisation of fresh musical works, thus becoming a significant force in the dissemination and promotion of contemporary music.

Joewan De Mattos **Caitano** dedicates his paper to Japanese music, depicting the activities of the Japanese composer Isao Nakamura in *Darmstädter Ferienkurse* between 1986 and 2008, along with his role as a percussion teacher and performer with Kaya Han in *Konflikt Duo*. De Mattos Caitano highlights the intercultural impact of Nakamura's activities on the rediscovery of Japanese culture and the exploration of other cultural traditions.

Daniel **Santos** and Henrique **Portovedo** guide us through the invention of augmentation processes for electric guitar. They offer a comparative analysis of compositional works for augmented electric guitar, and seek to understand how augmentation affects musical performance and impacts the development of performance skills.

Finally, Gabriel **Trottier** offers an inventory of new techniques for the horn, believing that these performance tools are helping composers to develop a new repertoire for this instrument. Trottier also argues that practitioners and higher education institutions can benefit from these tools, which can make music from the 20th and 21st centuries more accessible.

We would like to thank all the authors who have submitted papers and greatly contributed to the third issue of *Nova Contemporary Music Journal*. Also a word of appreciation to the members of the Scientific Committee and all the reviewers whose contribution has been invaluable to this publication.

Lisbon, 15 September 2023

Filipa Magalhães and Riccardo Wanke

# John Cage's 4'33": A Performance Perspective

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Philip Auslander<sup>1</sup>

**Abstract.** It is sometimes said that John Cage's notorious silent piece 4'33" is not a musical work but a stunt or gimmick. I refer to the piece's history to argue that its identity as a musical work is overdetermined. I also advance the claim that the performer of 4'33" is not simply a placeholder or framing device whose function is to draw attention to ambient sound. The performer's actions and inactions are focal in 4'33", making it an ideal piece for the performance of a musical persona. I conclude that Cage's notion that duration is the essential characteristic of music, of which 4'33" is the purest expression, deserves further attention. 4'33" suggests an understanding of music not as "organized sound" but as "organized time."

**Keywords.** John Cage, Sound, Silence, Duration, Frame, Piano, Performance Art, Musical Persona.

John Cage's celebrated (or notorious, depending on your point of view) blank composition, 4'33", originated with Cage's interest in creating a work using structured silence as his compositional material. He evinced this desire as early as 1948, when he announced in a lecture his intention "to compose a piece of uninterrupted silence and sell it to the Muzak Co. It will be 3 or 4 1/2 minutes long—these being the standard lengths of 'canned' music, and its title will be 'Silent Prayer.'" (Quoted in Gann, 2010: 126). (The Muzak Corporation was, for better or worse, a pioneer in the creation and distribution of background music for public spaces and workplaces.) Cage's idea of using silence as the material of music is related to his understanding of duration as a primary compositional element. In his 1949 essay "Forerunners of Modern Music," Cage (2011: 63) argues that the proper structure for music is "one based on lengths of time" rather than harmonic progression. The argument behind this position, which appears in a footnote, is that,

*Sound has four characteristics: pitch, timbre, loudness, and duration. The opposite and necessary coexistent of sound is silence. Of the four characteristics of sound, only duration involves both sound and silence. Therefore, a structure based on durations (rhythmic: phrase, time lengths) is correct (corresponds with the nature of the material)...*

In suggesting that composition should reflect "the nature of the material," Cage approaches music from a perspective like that of the art critic Clement Greenberg, who theorized modernism in painting around the same time, arguing against perspectival illusionism on the grounds that flatness is the defining characteristic of the picture plane. (Greenberg, 1973: 69).

Over the next few years, Cage came to an understanding of silence different from his initial interpretation of it as sound's necessary opposite. By the time he had finished work on 4'33" in 1952, Cage had embraced the view he articulates in "Experimental Music," an address of 1957: "There is no such thing as an empty space or an empty time. There is always something to see, something to hear. In fact, try as we may to make a silence, we cannot." (Cage, 2011: 8). Nevertheless, Cage over the years consistently referred to 4'33" as "the silent piece" and

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claimed it was his favourite work and the most important of his compositions. Cage also developed a significant interest in aleatory compositional techniques that would serve to distance the work from the composer's ego and conscious intentions. As he said, "I wanted my work to be free of my own likes and dislikes, because I think music should be free of the feelings and ideas of the composer." (Kostelanetz, 2003: 65). (It is notable in this context that the length of the hypothetical composition "Silent Prayer" was not determined directly by Cage but by conventions developed for Muzak.)

*4'33"* is structured as a sonata in three movements. Cage determined the precise length of the piece and of each movement using chance operations involving a deck of cards with durations written on them: "It was done just like a piece of music, except there were no sounds –but there were durations. It was dealing these cards– shuffling them, on which there were durations, and then dealing them... I didn't know I was writing *4'33"*. I built it up very gradually and it came out to be *4'33"*." (Quoted in Fetterman, 2010: 161-2). *4'33"* thus brought together three ideas that were essential to Cage: the desirability, yet impossibility, of silence; using duration as his primary structural device; and determining the specifics of the composition through chance.

The important shift in Cage's thinking about silence from his seeing it as the opposing possibility against which sound is defined to his realizing that there can never be true silence means that *4'33"* is not the silent piece Cage intended at one time to produce. But if not, then what is it? There is a critical consensus, encouraged by Cage himself, that *4'33"* is, as Kyle Gann (2010: 11) puts it, "an act of framing, of enclosing environmental and unintended sounds in a moment of attention in order to open the mind to the fact that all sounds are music." Gann's reference to music here is crucial, for there are those who argue that the framing function of *4'33"* is not enough for it to be considered a musical work.

Philosopher Julian Dodd advances such an argument. Working from Varese's definition of music as "organized sound," he argues that since the performer of *4'33"* merely frames whatever sound is present and does nothing to organize it, it cannot count as a musical work, going so far as to say, "Regarded as music, *4'33"* seems like a cheap gimmick or a cheat." He proposes instead that *4'33"* be seen as a work of performance art without offering a definition of that form against which to assess it, saying only that "it is altogether more illuminating to place it alongside other performance artworks" than to consider it to be music. (Dodd, 2018).

I have several objections to Dodd's position, the first of which is that it is ahistorical. I argue further that treating *4'33"* as a framing device without accounting for the ways the piece itself is framed is insufficient, and that Dodd does not provide an adequate account of the role of the performer. As Roselee Goldberg (2011: 7) points out in her standard history of performance art, "performance became acceptable as a medium of artistic expression in its own right in the 1970s." The Happenings and Fluxus events of the late 1950s and early 1960s were the immediate antecedents of this development. Cage played a significant role in this history: *Untitled Event*, a performance he and choreographer Merce Cunningham presented at Black Mountain College in 1952, the same year he finished *4'33"*, is sometimes called the first Happening and is considered by Goldberg to have "created a precedent for innumerable events that were to follow in the late fifties and sixties." (Goldberg, 2011: 126). Cage had a direct impact on many of the artists who created these events through a course he taught at the New School in New York in 1956.

Despite Cage's importance and that of *Untitled Event* to the development of the nascent art form of performance art, *4'33"* is not considered to be a canonical work in its history as it is in some histories of music. Whereas Goldberg mentions it only briefly as the culmination of Cage's early musical experiments and devotes far more space to *Untitled Event*, Michael Nyman (1999: 2-4), by contrast, treats it as a foundational work for the genre he calls

“experimental music” (also the title of two essays by Cage from the mid-1950s) and does not mention Untitled Event at all. It is clear from this that 4’33” does not have the same significance to the historical development of performance art as it does to that of experimental music. Neither Dodd’s attempt to wish away the anachronism of calling 4’33” a work of performance art by saying it was “at least ten years ahead of its time” nor his inattention to its lack of recognition within the critical and historical discourses of performance art makes for a compelling argument. (Dodd, 2018).

My second objection to Dodd’s dismissal of 4’33” as a musical work is that his account of the piece’s relationship to framing is incomplete. It is fair to say that 4’33” is a framing device intended to focus the listener’s attention on ambient sound. However, any performance of 4’33” is not just the implementation of this frame but also an event that is itself framed. Erving Goffman (1974: 10-11), in his monumental work *Frame Analysis: An Essay on the Organization of Experience*, defines frames as “principles of organization which govern events—at least social ones—and our subjective involvement in them.” These frames allow us to make “sense out of events.” In my book *In Concert: Performing Musical Persona*, I discuss the application of frame analysis to music in the following terms:

*Once we understand that a particular event has been framed as a performance of music, we know the terms in which we are to perceive, think about, and interpret the situation, and we know that those terms are different from the ones that would enable us to understand and interpret another kind of situation, such as the performance of a play. (Auslander, 2021: 5).*

Dodd’s claim that 4’33” is a work of performance art is based solely on its ostensible intrinsic functions as a composition—that it frames sound rather than organizing it—and ignores the social and institutional dimensions of its performance. My approach focuses instead on how music acquires its identity through the ways it is framed by performance situations. For example, Icelandic performance artist Ragnar Kjartansson’s *An Die Musik* (2012) is a piece in which eight pairs of singers and pianists spread out in the performance space perform Schubert’s song of that title simultaneously and repeatedly. When shown at the Migros Museum für Gegenwartskunst in Zurich in 2012, it was framed as a work of performance art, and the audience was asked to understand and evaluate it as such. When it appeared on the program of the London Contemporary Music Festival in 2017, it was framed as music for an audience prepared to consider it as such. Although the intrinsic properties of the piece do not change with each framing, its assimilation to the category of a particular art form—whether performance art or music—does, and this in turn changes what we understand it to be and “our subjective involvement” with it.

The premier of 4’33” took place in Woodstock, New York in 1952 at the Maverick Concert Hall, then as now a rustic venue primarily for chamber music. The pianist David Tudor, who was gaining a reputation at the time as an interpreter of challenging contemporary music, performed it on a program that included another piece by Cage (an early version of *Water Walk*) alongside works by Morton Feldman, Pierre Boulez, Christian Wolff, and others. As Gann notes, “the audience was made up partly of sophisticates of the avant-garde, partly of local music lovers, and partly of vacationing members of the New York Philharmonic...” (Gann, 2010: 5). It was a music audience, in short.

Gann (2010: 8) also observes, “however unconventional, this was a piano recital...” This definition of the event was further enforced by Tudor’s approach to the piece, which he insisted should be performed in the same manner as any other scored work:

*when I performed it I was looking at sheets of music paper scored for piano—two staves—with measures of four beats and the structural delineations given*

*by the constant tempo. [Tudor has indicated that the score listed the time signature as 4/4 and the tempo as 60.] So I was looking at the first movement and I was turning pages because I was reading the score in time. (Dickinson, 2006: 86).*

The performance protocols Tudor employed were those of a musician playing a work of music from score. In terms of how the event of which it was a part was framed, the identity of 4'33" as a musical work was overdetermined. The setting, audience, and repertoire, the presence of the score, the performer and his manner of performing all worked to frame the event as a concert of contemporary piano music.

There is a tendency now to discuss 4'33" in isolation as an autonomous work, but at its premiere it was on the program between Christian Wolff's *For Prepared Piano* (1951) and *The Banshee* (1925) by Henry Cowell. The former is a piece in which single notes or note clusters emerge against moments of silence, and some keys of the piano are deadened to sound almost like drums. Cowell's piece, which is played directly on the piano's strings, is sonically dense and dramatic. Placed in the context of these works, 4'33" is framed as a work of similar compositional and instrumental innovation. The three pieces together represent a spectrum of new music, from the spareness of the isolated events in *For Prepared Piano*, to the meditative emptiness of 4'33", to the intensity of *The Banshee*. They also present a range of uses of the instrument, from the piano as percussion instrument, to the piano as a means of articulating silence, to the piano as a stringed instrument. The meaning of 4'33", like that of any other piece of music, is partly a function of its relationships to other compositions.

The relationship of 4'33" to sound production is more complex than the idea that the performer is silent. This silence inevitably invokes, possibly even evokes, the sound the musician is not making. There are several reference points for the unheard sound. The first is instrumentation. Whereas the original score for 4'33", which was lost but reconstructed by Tudor, is specifically for piano, the last—and best known—score for the piece is a set of verbal instructions that the work “may be performed by any instrumentalist or combination of instrumentalists and last any length of time.” (Cage, 1961).<sup>2</sup> While the piece is still most frequently performed by pianists, the work also has been performed by instrumentalists ranging from soloists on guitar, harp, and non-western instruments such as the Chinese guzheng, to ensembles of all kinds from symphony orchestras to wind ensembles and at least one death metal band. There are vocal versions, as well. Clearly, instrumentation is closely related to musical style and genre, raising intriguing questions concerning the differences between the silence (or non-playing) of a pianist and that of a harpist, or between the silence of a symphony orchestra and that of a rock band. If the performer of 4'33" were truly there only to serve as a framing device, any warm body would do, yet Cage specifies that the performer must be an instrumentalist. I hypothesize that it must be apparent that the person performing is not making musical sound by choice rather than because of the inability to do so. Musical sound is not simply absent from 4'33": it is present as an intentionally unrealized potential.

Dodd describes the way the work directs its audience's attention:

*While listeners new to the piece might, for a very short while, try to pay close attention to the performance's content, they will soon discern that, since this content consists in silence, there is nothing there that rewards such attention. And it is just this realization that will prompt them to direct their focus onto*

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<sup>2</sup> This version of 4'33", called the "Tacet Version," is the third and last score Cage prepared for the piece. The first was the lost version Tudor worked from in 1952, and the second of 1953 is in "proportional notation." See Gann (2010: 178-86) for a discussion of all three scores.

*things outwith the performance's content: the sounds occurring around them.*  
(Dodd, 2018)

Tudor's description of his own actions while performing belies Dodd's claim. In fact, Tudor clearly was doing many things that would have rewarded the audience's attention. The sight of a musician assiduously reading a blank score is fascinating in itself. The issue here is that for Dodd, as for many commentators, the only content that counts in musical performance is sound, and anything the performer does that is not directly involved in sound production is irrelevant, a position against which I have argued extensively (Auslander 2021). In Dodd's account of how 4'33" works, since the performer is not producing sound, the audience will redirect its attention to whatever sound is available. This reductive view of musical performance as limited to the production of sound is particularly egregious when talking about Cage, who famously stated, "we have eyes as well as ears, and it is our business while we're alive to use them." (Cage, 2011: 12).

Martin Iddon (2013: 44) proposes that 4'33" "highlighted extravagantly" Tudor's performance style, which he describes as always characterized by physical understatement. William Fetterman (2010: 169) describes his performance similarly:

*The understated quality of gesture has, perhaps, become even more refined in Tudor's recent videotaped performance [of 4'33"] in 1990. Here, one can see very graceful, rounded gestures in such details such as starting the watch, closing the keyboard cover, as well as Tudor's close attention between reading the score and checking the reading by looking at the stop-watch. Except for turning the pages, Tudor had his hands folded in his lap during the three movements, his back erect, his expression very serious and concentrated.*

Both Iddon and Fetterman suggest that in the absence of sound, the audience turns its attention not to ambient sound but to the details and nuances of Tudor's physical performance and its relationship to his characteristic style of performing. In short, Iddon and Fetterman imply that Tudor's performance of 4'33" was a performance of what I call his musical persona.

I define musical persona by saying:

*To be a musician is to perform an identity in a social realm that is defined in relation to that realm. [...] When we hear a musician play, the source of the sound is a version of that person constructed for the specific purpose of playing music under particular circumstances. [...] Both the musical work and its performance serve the musician's performance of a persona. What musicians perform, first and foremost, is not music but their own identities as musicians, their musical personae. (Auslander, 2021: 88).*

One of the main factors that influences the construction of a musical persona is genre, which I see as a frame: "genre as a structure of expectation . . . is always a vital frame of reference in the performance of music" and musicians' self-presentations as musicians have to be legible within the conventions of a genre. (Auslander, 2021: 10).

Fetterman well describes the characteristics of Tudor's persona: the understatement, grace, concentration, and seriousness that he brought to bear on the music he performed. In the 1990 video, his dress is casual, his posture at the piano is informal but reserved; he holds his arms close to his sides. The score is spread out on top of the piano close to him so that when he turns the pages, he does not have to reach far, and the gesture is deliberate yet modest. (Tudor, 1990).

Contrastingly, pianist William Marx uses 4'33" as a vehicle for the performance of a much more theatrical persona. When he performs, he dresses formally in tuxedo or tails and sits bolt upright at the piano in a way that recalls Artur Schnabel's magisterial presence. When playing conventional music, he lifts his hands high above the keyboard to emphasize certain notes. He



brings the same gestural vocabulary to *4'33"*, lifting the stopwatch to his eye level rather than looking down at it, as does Tudor, and emphasizing the moments when he starts and stops it with a large and dramatic movement of his arm. He has the score on a music stand on the piano, making it necessary for him to reach over the keyboard to turn the pages, again a much larger gesture than Tudor's. (Marx, 2010).

Tudor's and Marx's respective personae are quite different from one another, yet both clearly make sense within the broad genre context of western art music, whether classical or contemporary. Both bring the same persona to the performance of *4'33"* as they do to all the music they perform. There is no mistaking them for performance artists—the personae they present are self-evidently those of *musicians*. These personae, along with the other contextual factors I have mentioned contribute to the framing and, thus, to the identification of *4'33"* as a musical work.

## Conclusions

From one point of view, *4'33"* has proven historically to be a success story. Whereas Cage lamented that the piece was initially misunderstood and that he lost friends over it, there is now a well-established understanding of Cage's intention: that he "hoped," in his own words, "to have led other people to feel that the sounds of their environment constitute a music." (Quoted in Gann, 2010: 65). Ironic, for a piece that was supposed not to reflect any intention! Of course, there is still much debate swirling around "the silent piece" particularly as to whether it can or should be considered a musical work, as I have discussed here, but there is no dispute as to whether it is historically significant and a worthy object of inquiry. Lost in the ongoing discourse are some of the more interesting ideas that underpin the work, such as Cage's notion that duration, which encompasses both sound and silence, is the essential property of music and, therefore, that composition should focus on the arrangement of durations. Cage thus suggests that music is "organized time" rather than "organized sound," a proposition with implications that far exceed his modest composition of 1952 in which the overall duration is organized by being divided into three movements. Among these implications are questions about the function of tempo and rhythm in the articulation of silence. What does it mean that *4'33"* is in 4/4 with a tempo of 60? How would it be different in a different meter or at another tempo?

From the perspective I have outlined here, if *4'33"* depends for its effect on the idea that the performer is only a self-effacing framing device, it is a noble failure. The audience's attention does not simply default to whatever sound is present in the absence of any produced by the performer, as Dodd suggests. Rather, the performance frame encourages the audience to attend to whatever the performer is doing and, as I have suggested here, what the performer is not doing, and the way in which the performer is or is not doing it. Far from disappearing from audience consciousness, the performer is at the centre of its awareness. Since the performer inevitably is working within conventions of instrumentation and presentation associated with a specific musical genre, that of new music or experimental music in 1952 and a proliferation of others since, any performance of *4'33"* is primarily a performance of the performer's musical persona.

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# Speculating about Music and Responsible Design

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**Abstract.** Music as organised sound is a form of design. Musicians are sound designers, and as such, in a world polluted by sound, they should feel and be held accountable for the products of their work. Sound, hearing, musical instruments, sound recording and amplifying devices are all variables in an equation that music designers have to deal with in their activity. General questions about design, designers and their world have been thoroughly analysed and discussed and in elevating the role of the composer and musician to that of a designer, raises interesting questions that have hitherto been more or less ignored by the musical establishment. We live in a world saturated by sound and music, and the known consequences for our physical and mental health of this should constitute an alarming call serious enough to equate the problems of design in general and music in particular in equivalent terms.

**Keywords.** Music and Design, Social Responsibility.

## Coda

A word of caution: the title of this opening section is not a mistake. Let me start with a coda, then: the keyword of this paper is speculation, not design or music, and certainly not “responsibility”. I want to speculate here a little bit about these topics. Do not take these words too seriously.

## Hearing

We all live, not in a yellow submarine, as the song goes, but within an air bubble. Air is an elastic medium, meaning that it changes its shape when a deforming force is applied to it, returning to its original shape when this force is removed. Air is such a banal thing, such a mundane topic, that we tend to forget about its properties. Air is an elastic medium, a combination of molecules of nitrogen, oxygen, argon, carbon dioxide and other different gases. The air that we breathe allows us not only to live, but binds us, to each other and to the surrounding environment. Air is probably THE original network.

Any thing that interacts with anything else produces a displacement of its constituent molecules (that is not really true but I am not correcting your physics). We can imagine two tectonic plaques, two clouds, a waterfall, a rain droplet that hits the surface of a lake, the wind through the leaves of a tree, or this same tree falling on the ground. All this interaction produces disturbances in the molecular structure of these interacting elements. The disturbances that I

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used as an example might in turn communicate those displacements to the air molecules surrounding them. This movement goes on while there is enough energy to maintain the process. Up until now, I've only described a physical phenomenon.

We can imagine these disturbances occurring in the wild, as a simple physical phenomenon, either stopping after the energy necessary to start them dissipated entirely or morphing into some other form of disturbance. But millions of years ago, during the process of the formation of life, new organisms appeared that were able to detect these disturbances. These organisms evolved into more complex ones, and the organs that they developed to detect those disturbances evolved, and became specialized in detecting certain aspects of these disturbances, which had a bearing on the survival of these organisms. In short, through a process that took millions of years, these organisms developed, on the one hand, the capacity of hearing and, on the other, an organ that was able to identify, interpret and give meaning to these disturbances. (I think something is missing here, namely, the relevant aspect is that these disturbances *propagate* in space and time otherwise they would not be heard)

Neuroscientists keep telling us that the brain is a plastic organ. We have plenty of evidence of that. Deaf people, who lost their hearing and recuperate it after a cochlear implant surgery, for example, rebuild, at least partially, the circuits in their auditory cortex.

These circuits give rise to the capacity of structuring the information, interpret it and act upon it. It could very well be that — and I speculate again — hearing and intelligence are connected. And I say this because of the very nature of sound and the hearing process. The very process of hearing “invites” us to perform a complex process that involves thought and action.

## Capriccio

The human species, developed, like other species, the capacity to detect all the physical activity mentioned earlier, to detect all those (propagating) disturbances, and to extract information and meaning from it. Gradually, and in addition to being able to identify and interpret the sounds around them, human beings, like other species, also developed the capacity to produce sounds. The evolution of the vocal tract seems to be linked to the ability to hear. Some scholars suggest that some sort of singing voice appeared first, which gave humans a capacity to communicate similar to the birds, cetaceans and others, and a speaking voice might have evolved from that process. This could explain the structural similarities between music and language, and would help explain the fact that these activities are located in the same regions of the brain. Music could thus have started as a sort of proto symbolic language, gradually evolving into the fully symbolic processing mechanism of the languages that we have today. Traces of such a process may be present in the many tonal languages that exist, perhaps, I might add, even in the whistled languages used in different parts of the world. A singing hominid might therefore have preceded the speaking *homo sapiens*.

Whichever came first, music or language, one thing seems certain: music wouldn't be possible without hearing; music is the embodiment and the result of the different processes of identification, interpretation and extraction of meaning from the acoustic activity that surrounds us, and finally, music serves a communicational purpose.

Music is a social activity.

It fulfils this social role through the use of a certain number of elements, tonal differentiation, rhythm, loudness, etc., which are related to the basic elements of sound. Some scholars define these as musical universals. More about that later. Combinations of these elements appear to

have certain precise effects that the neuroscientists have been able to identify. Other effects of music are the result of cultural processes. Some scholars consider music as a species specific trait. A musical capacity might represent a biological competence rather than a culturally acquired one.

Based on biological, based on cultural processes, or both, many explanations for the origin of music exist. Music, some authors suggest, might have been a vehicle for sexual selection, similarly to what we find in animal song. Others explain the origin of music as an element to enhance coordination and cooperation among members of a social group. Still others suggest the possibility that music might have appeared to improve parental communication, thus improving the possibility of offspring survival. Others still point to the possibility of a relationship between music and language. It could be the case that all the above explanations could be legitimate, and that, had they all occurred, they would have had different consequences for the evolution of music, and its further uses.

Notwithstanding the different theories that have been suggested for its origin, the power of music is unequivocal. Music is a universal, cross-cultural presence in human societies, from the dawn of Humanity to this day, accompanying every activity, from birth to grave, present in every corner of Earth. Music helped keep a steady pace during a hunt, transmit knowledge, helped rowers drive boats or workers lift walls. Music helped tell stories about plants, locations, people and legends, appease or frighten the enemy. Music revealed intimate sentiments, helped drive a tribe into a trance, enhanced the power of deities, glorified or destroyed real or made up heroes. Through its history music was tolerated, promoted, prohibited, replaced or appropriated. It served power but it also helped fight against it. From its origins to present day, music fulfilled these roles and was subject to all these attempts to control it.

## **Responsibility**

We are all designers. Design is another basic human trait. Probably not yet embedded in our genes, as music seems to be.

Design means analysing and solving problems and finding a solution to them. Be it a mathematical equation, the size of a staircase, or how long should the bristles of a toothbrush be. We are all designers. We are constantly designing our lives, facing problems and having to find solutions to them. Design has increasingly become a very complex activity. Tools are but one aspect of the designing process. We have the capacity to build tools and numerous other animals have it too. Tools are a question of survival and preservation of the species. Up until relatively recently we designed and built the tools that we needed for our survival. As science and technology evolved, particularly with the industrial revolution, building tools became a more complex and demanding task and certain members of the society specialized in the design production of the tools that we need.

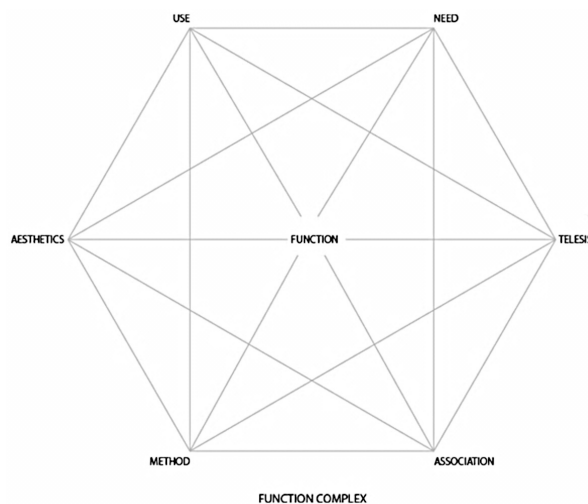
Let's take a look at a quick and simple example: tools for communicating our thought. I am accepting that thought precedes language. Language is a technology developed for the purpose of expressing thought. The way we first communicated our thoughts was through our own built-in tools, tools that evolved to fulfil this purpose: special centres in the brain to control speech, meaning and memory, our vocal tract and hearing, gestures and facial expressions. (These are not tools but capacities or capabilities!) These all contribute to express thought. As human activity and societies became more complex, new communication skills and technologies became necessary. The alphabet and writing were created to overcome the limitations of memory and transmission range, which were accessible to our own built-in technologies (again

these are capabilities not technologies). Communication using our own built-in capacities is a one-to-one or one-to-few interaction. Writing could overcome this, turning a one-to-one interaction, limited to the area covered by our senses into a one-to-many interaction, overcoming time and distance. Stone, wood, and the more portable wax and clay tablets, different carving tools and styli were created. These could be produced by anyone who needed to use that technology. Later the bulky stone and the ephemeral tablets were replaced by the lighter papyrus, parchment and paper. New writing implements using some sort of pigment were developed for these new writing surfaces. Although paper was difficult to fabricate, the first writing implements could still be fashioned by the user. You could transform yourself a feather into a quill. These technologies became more widespread and in a very real way, second nature. They also became more complex and difficult to produce.

After that came printing, which again involved elaborate design and special production techniques. It is one of the first examples of mass production that spread into all areas of the economy with the most dramatic consequences. The control of the tools was no longer in the hands of the user. After that came the digital era, which apparently put some of the lost control over the tools back in the hands of the user. One can now freely design the tools, but the machinery to do that and the networks are still, if not more, in other hands. These are powerful enough that they pose a real threat to the democratic running of societies.

Design as a profession is a relatively new activity, and it is the result of the scientific-technological-industrial revolution. Designers were brought in to solve the problems introduced by the new technologies, to help build new products or to incorporate these new technologies into old ones. None of these functions could be carried out without considerably impacting society at large. The social and environmental impact of design is a serious problem and we should all bring charges or at least question the merits of designing gadgets that end up polluting our oceans.

The environmental impact of the field of design became a social concern during the 60s and 70s. A lot of useless trash was already being designed and produced at that time and the situation seemed completely out of control. During that period a group of designers introduced the idea of responsible design. The aim behind the responsible design movement was to identify, analyse and help solve the problems of Humanity, and at the same time help fight an environmental crisis that already manifest at the time. This was a strong, socially focused and inspired movement.



Function Diagram by Pananek (1971/1985)

One of the pundits of this new design philosophy was an Austrian born, English raised, American citizen, named Victor Papanek. His book *Design for the Real World* (1971/1985) was, and still is a reference in this area. In this book Papanek tried to identify and dissect the elements of design and to call the attention of other designers to the impact that their activity had at various levels, namely its impact on the environment. This was a first step in the right direction.

One example of this concern is the Function Diagram, presented above.

*Use - Fulfilment of a goal*

*Method - The interaction of tools, processes and materials*

*Association - Care for cultural conditioning that leads into sympathy or antipathy for a certain value*

*Aesthetics - a tool that helps shape, give form and substance to design*

*Need - Does it correspond to a true need?*

*Telesis - "The deliberate, purposeful utilisation of the processes of nature and society to obtain particular goals." (Papanek 1971/1985:20-31)*

Papanek's goal was, that's at least my understanding of it, to identify each of the elements present in the design process, provide a method to understand in which way they behave and interact with each other to form a global unity. He calls this global unity *function*. Function, this global unity, in turn, can help transform the process, replacing a random, not controllable or, worse, externally controllable effort into something for which designers themselves can be made accountable. It transforms design into "responsible design."

In keeping all these variables in mind and understanding their interactions, designers are given a sort of road map that can guide their actions within the framework of an attainable and previously defined goal, but keeping this within a sustainable limit. Although there is one element in Papanek's Function Wheel that indirectly refers to the topic (Telesis), one critique that should be made is that the political dimension of design is missing or not sufficiently, in my view, stressed — in my view. In his later writings, specially in his book "The Green Imperative" this element is underscored but it does not give sufficient importance to aspects of power or of political nature. Design and designers are not neutral and the design activity is always kept within very strict limits, dictated not only by society but also, and above all, by the power relations that run through it. However the Function Wheel helps us to understand the design process better (it surely helped me even in my music) and it is an invaluable asset in any activity in this field.

"We are all designers", I said in the beginning. The phrase is not mine, it was written by Victor Papanek in *Design for the Real World*. R. Murray Schafer (1977), the Canadian composer, creator of the field of acoustic ecology, who coined the now overused and often abused term "soundscape", wrote that the "soundscape is like a music composition and we are all composers writing it."

I bring the name of Schafer into this presentation because the environment, not only the acoustic environment, is our collective work now. In 1987 Papanek wrote in *The Green Imperative*:

*"We have now attained the power to change the natural order of the Earth and throw it out of harmony. We manufacture trivial gadgets (...) wasting irreplaceable resources, poisoning the atmosphere during manufacture and polluting the ground once we have grown tired of them. We cut down forests and create deserts. We poison the lakes and rivers with industrial chemicals and pharmaceuticals, kill the fish and then drink the water ourselves. We dump waste and toxins in the oceans and overfish them. Not only we threaten*

*other species with extinction, but also tribes of our own species, who rely on an ancient and intricate relationship with the environment.” (1995: 10)*

We are all designers of this environment, we are all composers (Schafer, 1977). Composers are all therefore also designers.

When I first read Schafer’s phrase in the late 70s, we were all concerned with the problem of noise, and I took it as an appeal to bring musical thought into the acoustic environment, and indeed that must have been the understanding of many composers and other artists at that time, who created the countless installations and sonic sculptures, that enriched many public spaces throughout the world, Music that incorporated the sounds of the environment or simply inspired the introduction of a musical order in the fight against noise pollution.

But in time I came to interpret this message in a different way: we probably have to bring the environment into music now.

Power is a concept that can be interpreted in a variety of ways. Power means strength or force. You can have the power to control a society, by force or by vote. Power can also mean the capacity to influence. You can have power because you have a special useful skill. Abstract concepts can also be powerful. You can have a powerful character.

Power plays determine our actions. Designers usually obey to the client who’s paying and has the power of the last word.

Hurricanes have power, engines can be powerful and drill through mountains. There is both hard power and soft power. Although questions of power are absent in Papanek’s writings, even though he recognised that we have the power to destroy our environment now, in presenting his concepts, he revealed that there is a hidden power in design and that designers have the power to unleash it.

There is a dimension of power in all these matters that we often neglect or undervalue.

## **Ritornello**

Music, for example, has the power to move us, as I tried to demonstrate earlier. There is a myriad of explanations for this capacity that music has to move us. It is disturbing that at present they do not seem to fit into a global explanation, but at the moment when we try to integrate these partial explanations into a more global one, we end up with yet another partial explanation. At a very basic level music is built upon sound. And music, as I said, is impossible without hearing.

The components of sound are very easy to identify but less so if we try to define some of these components in isolation. Pitch is a basic component of sound. Higher or lower frequency corresponds to higher or lower pitch. But when you say a lower or higher note it refers to written notes on a score. The same goes for loudness, which refers to a more or less powerful sound, or stronger one. A stronger sound seems to cause a stronger emotion. Sound can also be characterized by its timbre. Each sound that we hear is in fact a complex of sounds, moving changing in time in a characteristic way. Even if they sound together, we can distinguish an oboe from a bass drum, and the voice of your mother from a violin. Harmonic content, formants and micro and macro time transformations, are some of the elements that allow us to distinguish different sound sources.

There is also duration. Each sound lasts a certain amount of time. Be it a cricket’s chirp or La Monte Young’s sine waves that have been sounding for decades. Duration defines rhythm.



Each sound source will also have a fixed location or be moving. You know where the sound of your neighbour's hi-fi at 3 o'clock in the morning is coming from, and digital technology can give you a virtual location of a sound in your headphones. Finally, each sound can be located in space but it also describes this space through reverberation. A sound produced in a space activates that space, and this reveals the nature of the space adding other colours to the sound's original timbre. An oboe in my kitchen will sound differently from that same oboe at the *Concertgebouw*.

These elements are the basic building blocks of music. They are the sources of the melodies, the harmonies, the rhythms, the colours and the movements of music. From this point on, things get a bit trickier.

Why do these melodies, harmonies, rhythms, colours and movements of music move us?

There are many explanations, and as I said before they do not fully explain why Bach can drive us into ecstasy if listened to in a concert hall, but scarcely attract any attention if listened to in a busy train station, as illustrated by the episode of Joshua Bell in the Washington Metro.

According to some theories, the elements of sound reflect directly on the brain in a mechanical fashion. Changes in sound produce changes in the brain circuits in a direct cause-effect mode. According to other theories sound affects listeners, depending on these listener's particular psychological makeup. If a listener is prone to cry or to chill, a certain sound will trigger that reaction. Still other theories claim that music is a cognitive process. We listen to music and try to extract structures, not sounds or sound patterns.

To these more or less mechanistic explanations for the powers of music, other theories suggest that music is a social construct, much like language. In this view, meaning and structure in music are negotiated (again like language) between members of a social group. Music promotes attachment and bonding between members of the group, or promote differentiation. These and other feelings carry meaning to the music and also contribute to its power.

Whatever explanations we may find to prove the power of music, this power is a fact. Like consciousness, we know we are conscious but we have trouble defining the concept without falling into a circular definition. We can't put our finger, at least not yet, on what exactly is consciousness or on what constitutes the power of music.

Nevertheless if there are people who know about this power, it is the music designers. They know about it all too well. In fact they live on it.

We are all designers, we are all composers and performers of in this great collective effort that is the acoustic environment. But the stakes are higher, I am afraid. So something should be demanded from music designers if we are talking about responsible music design.

## Intro

What is the purpose of music of today?

The vibration of air molecules we call sound precedes life. Practically every species on Earth developed a mechanism to detect these vibrations, and to extract the meaning they carry: a vital skill necessary for their survival. The awareness of the power that of mechanism for detecting sound and extracting meaning from it in turn lead humans to develop another skill based upon their capacity to hear: the ability to build sonic structures that mimicked the natural sounds around them, perfectly conscious of their power and the capacity they had to interpret them. Such a skill became so firmly ingrained that some authors consider it species specific. The first

sonic structures created by humans probably tried to re-enact the deep impressions that the natural sonic environment provoked on them and illustrated the power of sound and served as a proto-language.

This was music, the *new music*. From the initial iterations of this new music, newer ones were developed, that added new sounds, artificial sounds that were created based on the exploration of the sonic qualities of the materials available. New structures were built upon them and tested. Vocal sounds were added. Language probably evolved from the same process. Some were certainly more imaginative than others in creating this new music. Some people were also more successful than others in this exploration; others were more skilful and efficient in creating new sonic structures. Others discovered faster or new ways to transmit new meanings from the sonic structures they made up; others still were more skilled in doing that and grabbed the attention of the others more easily. Some felt inclined to invent new structures and new sounds. Others simply followed them and joined the band. Newer music was then added to the original new music. This process of creating new music and layering new music upon the older one, went on and still goes on today, thousands of years after the original new music appeared. These new layers reflect changes in society, in technical, economic conditions and reflects an ever-evolving control of society upon those very processes, once their power was unravelled. “New music” became synonymous with adjusting to these changes.

This early music didn’t distinguish sharply between those who created it and those who reacted to these creations. In some societies this distinction is still not clear. But in the majority of our modern societies the schism between those who create and perform music and those who simply expose themselves to its effects is huge. What we have now is new music without audiences and audiences without new music. Audiences control, condition and deter the process of musical creation. During the demonstrations that are taking place all over the world to bring back the big music festivals after almost two years of lockdown, we don’t hear anyone claiming for freedom to create new music, we hear “entertain us.”

And yet, historically, there has probably never been so much different music, so many skilled musicians and composers, such rich and perfect performing and technological conditions for practicing music as we have today. We probably never had such perfect tools to perform and write music, to research it, to preserve it, as we have today. But audiences couldn’t care less.

Music has to struggle harder than ever and despite the traditional view; the role of musicians has never been so feeble as it is today. One simply has to notice the state of vulnerability musicians ended up in during the pandemic. No wonder, when we realize that music, every music, has turned into one of the building blocks of a particularly cruel system that threatens to end the human species. The vast majority of the music produced and performed today is simply the soundtrack of the very system that is preventing its development.

Music designers have been more or less immune to the demands of a more responsible activity. But music has a strong role to play. It has tremendous powers and music designers have the power to unleash them.

Responsible music design is thus not only the sole correct way to proceed, but most probably one of the most important vehicles of change that our society has at its disposal. The original new music was created that way. Probably not since the first songs helped spread and preserve knowledge, help coordinate action, or appease the crying baby, since music first contributed to help *homo sapiens* gain its phylogenetic edge, has it been as important and necessary. It is the time for us to act upon this responsibility.

This can be accomplished on two levels.

Firstly, we must ask ourselves how can music contribute to change the current state of affairs. It seems that we need to change habits, to modify behaviours, to devise new models, recycle, reuse, save not spend.

Secondly, it is crucial that we agree on how this can be done. We know that music can give its listeners the possibility of reaching the sublime. Not only through the merits of using wisely its basic building blocks and the structures their combinations allow us to create, but also through the creation of a favourable and adequate social environment for all these powers to be released. Music designers have to act upon both.

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# Music Performance in the Making

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Caroline Wilkins<sup>1</sup>

**Abstract.** I propose to situate music performance within the increasingly widespread thematic of Performance Philosophy, an interdisciplinary study that examines the nature of creative thinking within a performing arts medium, a process that occurs during the act of performance itself. Given the diversity of new techniques and approaches towards the body, technology, instruments and voice, contemporary musicians are faced with a radical change of aesthetics in today's musical world. A different kind of musical creation, compared to that of the fixed work offered by a composer, questions the certainties of traditionally inherited academic knowledge. It offers interesting parallels with contemporary theatre, dance and inter-medial performance, all of which, to a greater or lesser degree, involve affective interaction between bodies, space and time as part of their creative process.

**Keywords.** Performance-making; music-making (musicking); performance composition; performative composing.

My examination involves an essentially phenomenological approach towards the study of contemporary performing musicians, exploring how an act of performance participates in a receptor's experience and understanding both of time and of musical form in the making. Depending on venue conditions and the degree of physical proximity between performer and audience, an affective connection can be made between them, this through the immediacy of an act that embodies thinking through sound. There is a sense of co-creation, leaving room for a musical event to unfold and be shared through a process of both receiving and giving energy. Here the musician's procedural memory, based on training and technique, is challenged by a need for his / her own performance presence or *persona* as such. With direct reference to two excerpts from contemporary music performance, I propose to examine the above concerns from an essentially practice-based perspective.

I begin with an example of performance as creation: vocalist Sharon Gal's project *Sound Out* at the Victoria and Albert Museum, London a participatory performance for a large group of vocalists (Figure 1).

This is a partly structured, partly improvised vocal performance using voices that have undergone intensive work with Sharon Gal prior to the event. In the museum the performers place themselves on all levels to maximize the acoustic possibilities offered by such a large resonant space. Not only do they respond sonically but also visually and haptically (sensuously) to the objects, sculptures and audience surrounding them, exploring pre-existing forms for their sonic potential and tactile or mimic qualities. The audience remains embedded within the performance space, standing, sitting on the floor, or moving around the performers. One vocalist hesitates to begin his sound whilst his colleague waits for him in anticipation; he wears an expression of sheer joy at hearing an immediate vocal response to his sound, one that ensues from the balconies above, from the *gods* of the space. As observers to this filmed event<sup>2</sup> we

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<sup>2</sup>Available at <https://www.youtube.com/watch?v=Y0d1xO7Xnj4>

witness something being made and initiated by Gal’s presence, a creative performance that takes on its own impetus through the sheer energy of its participants who listen and respond to each other. Musically, the sounds are based mainly on extended vocal techniques —cries, trills, wails, sirens, drones, hums— as well as song, heard as solos or small choruses and conducted by Gal as she moves around the museum, occasionally adding to the sonic texture with her own voice.



Figure 1. *Sound Out* by Sharon Gal (2015). Used with permission from the author.<sup>3</sup>

This is an example of what Christopher Small refers to as *musicking*: “to music is to take part, in any capacity, in a musical performance, whether by performing, by listening, by rehearsing or practicing, by providing material for performance (what is called composing)” (1998: 9). Most important in this context are the phrases “to take part” and “providing material for performance”. I propose to examine these terms in the light of the following questions: What is called performing? What is called composing? My challenge of these two separate terms takes the form of a bridge between them, such as *performative composing* or *performance composition*, placing the role of musicians in a wider and more creative, fluid context, and thus inviting both parties into the game. The term *performance writing*, familiar in reference to the written and oral combination of sound poetry or rap music, has long existed in the literary world. Indeed a radical aesthetic shift away from the work of art as such and towards its performance, as heralded by the performative turn, was initiated by early avant-garde twentieth century mass media and has been re-embraced by, amongst others, music theorist Erika Fischer-Lichte (2003). Divisions between performing and composing have become increasingly delimited, manifesting themselves instead as events that exist within the creative activity of the artist and the experience of the audience. A radicalisation of music’s performative aspects reinforces its materiality and expressive qualities that, in turn, become intensified and witnessed as embodied, corporeal. The emphasis on aesthetic articulation lies in the *presentation* of a performance and not the *representation* of a written score. Small’s term *musicking* thus embraces an all-inclusive act that harks back to the oral traditions of music-making in Western civilization and indeed to many world-wide cultural practices that still exist nowadays.

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<sup>3</sup> <https://www.sharon-gal.com/reel>

In this light it is important to consider the historical practice of increased artistic division throughout previous centuries between musical genres and expertise, ones that have led to a predominance of traditional training in classical musicians today. A criticism of such an age-old aesthetic comes from sociologist, composer, and theatre maker Heiner Goebbels:

*the training of musicians today should have more than ever to do with aesthetic impulses and their underlying structures... One doesn't have to like contemporary music but one must recognize its existence and include it in a strategy of musical training for the future... amongst the most exciting musicians of this century there are many who cannot read a manuscript... one...discovers how creative and unpredictable collective work can be (2002: 1874).*

When he talks of “aesthetic impulses” Goebbels refers to the vast changes that are occurring within music as a performing art in terms of its interconnections with theatre, dance, song or text, as well as the role that media technology now has on developing and evolving new aesthetic forms. It therefore seems vital to redefine the nature of music performance practice from a philosophical point of view. This means allowing for multiple layers of thinking in music to be present during an act of performance, ones that can manifest themselves through an opening up of the performer’s role and incorporate the specific space, acoustic or audience during a musical event. It also means approaching performance as an affective interaction of multiple *bodies*, those of musicians, their instruments and their technology, all present in real time and onstage as performers, whether physically or virtually. Indeed, Goebbel’s concept often separates the performer-body from the sound-body (the instrument or voice), thus gaining a distance between them in order to de-synchronize a visual from an aural presence. His purpose is to allow independence between both types of body, one that allows for each to play a non-functional role in relation to the other and assume a different dramatic quality as they pursue parallel lines of activity within a performance. These lines can intersect at different points, but their simultaneous existence allows for a certain depth of non-narrative meaning to occur with regard to their separate presences.

Acknowledged here is the importance of sound in relation to space and time, the exploration of new techniques and approaches to one’s instrument, the relation of all of the above to technology, and the role of these multiple *object-beings* within that performance space. Increasingly, young artists are faced with the need for a diversity of skills and techniques in other performance and technological fields. However, these are often placed at odds with the safe, known world of a traditional classical musical training, when in fact a fresh approach that combines them together within a newly-created aesthetic context should be encouraged. Thus the role of the performer in today’s musical world can extend to include other fields and embrace a different process of creation to that of interpreting a fixed score. Essentially, his or her role involves bodily action onstage and in this sense is closely linked to theatre, dance or inter-medial performance. The creative act can embody a radical shift towards an unrepeatable collective performance that resists any pre-meditation and questions the premise of inherited academic knowledge.

All of these concerns are taken up within the wider context of *Performance Philosophy*,<sup>5</sup> an approach that allows thought and action to enter into the same field of discourse. An example of the link between them can be gleaned from an article in the above-quoted online journal by two musicians, William Teixeira and Silvio Ferraz, on time in musical performance. In an essentially phenomenological approach to the study of contemporary music, they examine how

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<sup>4</sup>Author’s translation.

<sup>5</sup>Available at: <https://www.performancephilosophy.org>.

an act of performance participates in the listener's experience and understanding of time. Musical performance is understood as "form forming itself" (Teixiera and Ferraz, 2019: 499). Sound in motion is music taking form *in* the form of performance. Music is an action that depends on the human condition. Formation is a process of the whole as a structural becoming. The energy of sound is awarded by impulse, movement and ending. Musical performance thus becomes an extended present, a synthesis of past and future in a *performative act*. A musician shapes both experience and time itself. Most importantly, the listener is invited into the act.

A parallel in terms of Teixeira/Ferraz's approach to time can be made with the philosophical writings of Gilles Deleuze. For Deleuze performance is a zone of intensity that can generate new, unknown movements, forces and forms. The *Aion* is defined as an instant of time: "the present without thickness of the actor, dancer, or mime [*or musician*] the pure perverse moment...of counter-actualization" (Deleuze, 2003: 168). Its intensity remains over time due to the force of the event, which connects *across* time. Applied to musicians as creative thinkers, the knowledge that emerges as a result of direct, unconscious action can be viewed as changeable and experimental, creating new spatial-temporal dynamisms. This approach emphasizes in turn the potential protean qualities of a musical performer in an affirmation of his / her own *larvality*, one that can change its form of identity during performance, much in the same way as the body of a dancer. The relationship between musician and instrument alters, evolves, through a re-discovery of their *inter-corporeal* action; there is a subtle shift between the animate and the inanimate, between instrument-body and body-agent, expressing not only sound but a resultant choreography.

The artist Robert Rauschenberg, in his work with moving images, speaks of encountering an object as an animate force and of "responding to images that are *in between* representation" (Joseph, 2007: 228). The same can be applied to a musician's sound and movement. A mutual disarticulation and de-familiarization can occur that transforms both. It is a question of re-educating human behaviour using a performer's innate facilities, through a situation that obliges them to re-align their thinking patterns through action. Thus the role of art can become one of witnessing an unknown idea take shape. In this way musical performance takes the form of an emergent stratum of power and knowledge. Actions of movement and change can be interposed differently to traditional patterns in terms of their timing and direction. There is a state of indefinite movement, a suspension from stasis.

On that note I move from a discussion of the protean musician-body to a practical perspective from a wider performer viewpoint. Theatre practitioners Leslie Hill and Helen Paris have much to say in their book *Performing Proximity* (2014) that could be applied from an actor's to a musician's training. I shall list some key pointers below that can be applied directly to the making of musical performance:

- Hill and Paris discuss audience connection through the *immediacy* of an act, as a performer communicates affectively. For a musician this means thinking through movement and sound within the live moment.
- They cite the important question of proximity to an audience and how it enables different modes of performance. An awareness of proxemics zones within a performance venue allows for a variance of ideal densities of audience with regard to their number and placing within the space.
- The shape of a venue affects the performers, and this is where a traditional concert hall, with its vast distance to audience seats, poses a challenge. Complexities and subtleties can often be lost, along with the performer's sense of connection. Conventional spaces often stifle and mute an audience's response, where the rigidity of sitting in silence affects people's behaviour towards a

distanced performance. Close audience, on the other hand, sets up an inter-subjectivity and feeling of *communitas*.

- Technology is also highlighted in enabling degrees of proximity during performance.

A parallel to this last point can be drawn with an analysis of sonic zones by electronics composer Simon Emmerson in his book *Living Electronic Music* (2007: 98).

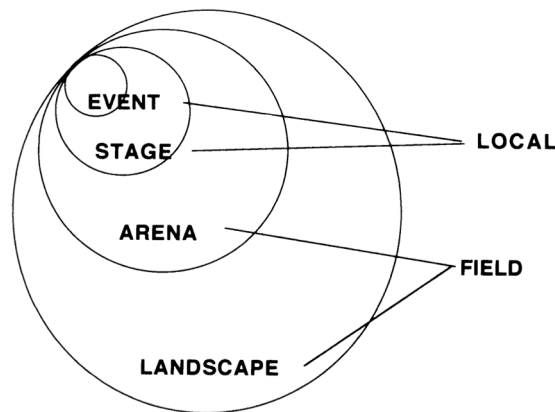


Figure 2. Local and Field space frames, Simon Emmerson, Figure 4.1. Used with permission from the publisher.

Emmerson divides the performance space into four areas: *landscape* (the peripheral space), *arena* (the space around the performance), *stage space* (the immediate space around the performers) and *event* (the actual space of the performer). These represent two frames – the *field* (*landscape*, *arena*) and the *local* (*stage*, *event*). Thus, for example, monitor speakers are placed in the stage space and the larger ones in the periphery of the landscape. The monitors provide a *local* control of the sound and the larger speakers provide a mixed diffusion of the combined sound to the *field*. An interaction of frames, or frame-play, happens in the space of the *arena*, which becomes the fluid borderline between the two. The audience are potentially in a situation of being able to move through the arena, thus engendering their own sonic perspective of a work. A musician adjusts their skills according to the space, controlling the degree of volume and expressive projection. A sense of co-creation leaves room for an event to unfold and be shared. One is aware of performers receiving energy as well as giving it, allowing for input from an audience to shape a creative output. Energies are thus shared through a mutual spatial-temporal experience, contributing towards a creative moment of *becoming* music.

Finally, authors Hill and Paris talk of the “poetic presence” of a human performer (2014: 16). Thus applied to a musician, eye contact, timbre, pace, pausing and ‘holding’ the music, can all give a sense of playing to and for each individual audience member. Memory plays an important part with regard to this exchange and to the different levels of reaction that occur between the two. Challenged is the procedural, automatic, learnt skill of a musician’s memory when faced with a situation of remaining open to a live audience. Here the application of actor training to musicians can help in maintaining a sense of communicational experience. A small audience invites more sensory input for the performer in what becomes a genuinely *lived* event. Indeed, Hill and Paris use the phrase “sensuous scholarship”, forming a link between the performing arts and sociology (Vannini et al., 2012: 76). Four factors emerge from this term that can be related to the creative process of musical performance, namely indeterminacy, performativity, contingency and emergence. In fact these correspond closely with my previous observations



drawn from both practical and theoretical sources and based in turn on aesthetics, philosophy, performance art, acousmatics and music theatre.

As a final example of the above discussion, taken this time from the practice of instrumental as opposed to vocal musical performance, I present the work of the *Stegreif Orchestra* from Berlin. Here an extraordinary rehearsal process allows for music to emerge that is really performed in the making. A production entitled *#Freebrahms* mingles its performers freely amongst an audience in a vast interior space. An enormous building, in which performers and spectator are free to roam, is used in this multi-perspectival piece, enabling powerful choreography to develop alongside the task of making music. Highlighted is the acknowledgement of spaces “in between” the music through freeing the performance context and allowing physical proximity to an audience. The work reflects a definite tendency towards performer-specificity. There are a number of reasons for such a paradigm shift, including the circumstances under which such collaborative work is now made, its interactive and technological demands, and its focus on particular performers’ skills. One would say that a production emerges out of the unique constellation of its makers and could not simply be re-staged according to the fixed basis of a musical score. Indeed, given the multiple components pertaining to each production, it could be argued that subsequent performances by the same orchestra would inevitably lead to further changes and developments of both form and content. In short, the onus is now placed increasingly on the performative nature of twenty-first century new music rather than on the conception of a *work* as such, which has become a thing of the past. Taking a symphony of Brahms as a starting point, the orchestra makes it their own by first memorizing their parts then improvising collectively on the original material, under the guidance of collaboration with contemporary in-house composer-performers. Thus the music of a classical composer from the nineteenth century enters into that of the twenty-first by means of association and connections made with other *musicks* of our time, such as the samba rhythms of Latin America. Respect of all styles is maintained as the orchestra presents a hitherto regarded traditional composer, such as Brahms, to a culturally mixed audience of today, deepening an understanding of both musical contexts and historical sources. *#Freebrahms* involves Ela Baumann, choreographer (Luxemburg), Juri de Marco, artistic and musical director (Germany) and Alistair Duncan, co-composer (Scotland).



Figure 3. *Stegreif Orchestra* by Bernd Schoelzchen. Used with permission from the author.<sup>6</sup>

By way of conclusion I shall draw the different contextual threads of this paper together by placing them in a wider frame of relationship to the title. It is clear that I have consistently attempted throughout my discussion to go beyond the limitations of the subject, namely music performance, in order to re-address its fundamental connections to the other performing arts, technology, sociology, aesthetics, time, space and philosophy. In so doing I am re-embracing contexts which have become neglected in some quarters by an over-zealous adherence to musical tradition. Whilst efforts have been made in the past to reach *outside the box* by music practitioners and theorists, a lack of adequate training, experience and knowledge in the above fields has frequently led to frustration when opportunities arise. This indicates a problem within music education and its inter-connections with other institutions across the board, as well as platforms for funding. The example of an enlightened individual or group from the domain of academia is still rare, whilst rigid structures of higher education are often obliged to retain specialization within each field of study in order to secure their own funding.

My argument proposes the solution of an embodied approach to disciplinary music training that begins with an experience of integrated arts and media technology as tools with which to explore new performance forms. Placing the performer body at the centre of this discourse offers the possibility of re-connecting threads that have been lost through over-specialization, bringing them into a lateral relationship of communication that extends knowledge through encounter. My concern lies ultimately in re-evaluating our methods of acquiring knowledge – our epistemic tools – in a genre that will inevitably become more inter-disciplinary and mediated in the future. A key factor in any exchange between musicians lies in their ability to transfer between sense modalities during processes of thinking by means of a fluid, contextual, global approach that provides an inner horizon and accepts the pre-existence of unconscious knowledge.

The phenomenon of sensitivity in one or several of the senses indicates the importance of the body-being as a pre-condition for creativity in music performance. With it comes the memory of sound, so that the meaning of a certain vocal or instrumental sound evokes an experience stored in the body. Every sound “before becoming the indication of a concept...is first of all an event which grips my body, and this grip circumscribes the area of significance” (Merleau-Ponty, 2003: 273). Terms such as formation, shaping or moulding indicate a close connection between the senses and, like the term gesture, point to an imaginative world related to the body that is not only conceptual. Musical ideas are also gestural ideas that indicate aspects of their original energy and tension. Between the body and the sound material an unconscious dialogue takes place, in which the original singularity of the subject reveals itself to its environment.

My examples of Teixeira/Ferraz and Deleuze have served to enlighten such a discussion of phenomenology in relation to creative music performance and drawn parallels with an emerging field of study, that of performance philosophy, which challenges the divide between thought and action. In turn this has an effect on a musician’s concept of time and space, opening up the traditional approach of musical time outside of the score and heightening an awareness of sound space as well as audience proximity, both of which have an immediate effect on the creative content. Christopher Small’s definition of *musicking* has acted as a connecting thread throughout my paper, linking the practical examples of music performance by Sharon Gal and the Stegreif Orchestra to theorists such as Fischer-Lichte in her aesthetic heralding of a performative turn within music. The performer-body, so evident in my two examples, is

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<sup>6</sup> #freebrahms-trailer promo video 2019 <https://www.youtube.com/watch?v=AcyhI4OEdhY>

exemplified in the writings of theatre practitioner Heiner Goebbels and underpinned by the work of Robert Rauschenberg in his performances with moving bodies and images. Finally, a wider context of sociology offered by Hill and Paris (2012), Vannini and co-workers (2014), Ihde (2002) and Bourdieu (1977) has offered important perspectives by reflecting on the conditions for creative music performance, ones that can both deepen and expand our current reception of this emerging, innovative and open-ended art form.

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# Artistic Ekphrasis and Inphrasis. A Term in the Studies of Intermedial Works

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Monika Karwaszewska <sup>1</sup>

**Abstract** The paradigm of intermediality entails the performance of a multi-aspect analysis of the work, not only within the scope of building the form continuum and defining the musical style but also within the scope of defining the relationship between the media which participate in the signifying process. The notion of *ekphrasis* is growing in importance in the research on the intermedial work of art. The term *ekphrasis* functions in literature as a dialectic of word and image. Over the years, the concept *ekphrasis* has been addressed by many scholars in their research, especially in the fields of rhetoric, literature, art, and media. American researcher Siglind Bruhn has proposed a definition of *musical ekphrasis* to describe musical works that are musical representations of something previously represented in words or image form. In Polish studies on choreography, Stefan Drajewski introduced the notion of *choreographic ekphrasis* for works that use movement and dance to represent emotions contained in a musical work. The essence of the concept *ekphrasis* is the verbal interpretation of music or another work of art (the use of the verbal medium to represent the non-verbal medium), while *inphrasis* is the communication of emotions arising from the content encoded in the verbal medium (the plastic, musical, visual, choreographic realization of the verbal text). Exploring the relationship between particular verbal and non-verbal media, the author's definition of *ekphrasis* and *artistic inphrasis* has been formulated. The proposed analytical concepts were applied to the interpretation of selected contemporary intermedia works, made on the emotional and symbolic levels.

**Keywords.** Intermediality, Ekphrasis, Inphrasis, Contemporary Music, Intertextuality.

## ***Ekphrasis: its origin and definitions***

Artistic works, which may be considered intermedial today, both within the scope of the media used and their interrelationships, require standardizing the scientific terminology. One of the terms (besides the meaning of the term 'intermediality') which may be used to describe the intermedial relationships in an artistic (choreographic, musical, plastic, film) work is *ekphrasis*, functioning in literature as a dialectic of word and image. Not only does this term have crucial importance for the contemporary discussion on media theory; it is first and foremost 'a crucial part in understanding media as the intersection of verbal and visual' (Welsh, 2007).

A poet or a different author of a text may express in words) in his or her own medium the emotions evoked by a work of visual or musical art, transposing its style, structure, metaphors or message from the non-verbal (visual and musical) medium to the verbal one, creating *ekphrasis* in its classical meaning.

Likewise, the creators of a work of art, i.e., the composer, the choreographer and the visual artist use this inter-artistic type of transfer. The composer or the choreographer may react to the visual representation of the work by transposing the aspects of structure and content of this

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medium. A special case of *ekphrasis* is programme music with an extramusical programme, where the composer depicts an extramusical reality through mimesis or a type of reference. This situation, however, is reversed because of the transferring of the content and meaning from the verbal medium to the non-verbal one.

The term *ekphrasis*, borrowed from Greek, means ‘an accurate description’. Peter Wagner emphasizes that the term has been adopted by literary critics and art historians in the field of rhetoric (Wagner, 1996: 13) but the need still exists for expanding the meaning of this concept and transferring it to the area of an even more greater number of disciplines. At the beginning, *ekphrasis* gained popularity in the literary debate with reference to iconic poetry. Initially pertaining to an excerpt from a work, it became functioned as an independent ‘poetic piece being a description of a painting, a sculpture or an edifice’ (Sławiński, 2002). Later on, *ekphrasis* inspired several scholars of music, film or choreography, who redefined this concept. Besides Wagner, studies on the issue of *ekphrasis* were undertaken by e.g., Claus Clüver, who found connections between literature, plastic arts and music (2017), and defined *ekphrasis* as ‘the verbal representation of a real or fictitious text composed in a non-verbal sign system’ (1997: 26); Murray Krieger (1992: 265-267), who defined it as the imitation of plastic art works in literature; while Hans Lund referred to the stance adopted by the authors of derivative works, i.e., poets towards works of art – painting – establishing three categories for the relationship between text and painting: combination, integration, transformation (1992); and, finally, James A.W. Heffernan defined *ekphrasis* as ‘the verbal representation of visual representation’ (1991: 299).

Siglind Bruhn, who adapted the literary *ekphrasis* to the field of music, introducing the concept of musical *ekphrasis*, coined the term ‘musical *ekphrasis*’. She assumed that musical pieces were musical representations of verbal and plastic works (2000; 2001: 560). The scholar categorized the different ways how musical *ekphrasis* functioned, identifying the way in which the composer, similarly to a poet, may react, also in many different ways, to a visual representation (image) in the form of association, transposition, interpretation, supplementation or play (Bruhn, 2001: 551). Following the American musicologist, Tatiana Tsaregradskaya continues researching on musical *ekphrasis* as a special case of intermediality, proposing the systematization of the relationships among different media within a single musical composition (2020: 7-16). Laura M. Sager Eidt adapted Bruhn’s concept for the area of film arts, suggesting the term ‘film *ekphrasis*’ (2008) (and its four types), assuming that this *ekphrasis* included not only the verbal, visual system but also the auditory one, while Stefan Drajewski introduced the concept into the area of choreography, defining the term ‘choreographic *ekphrasis*’. In his studies Drajewski assumed that the discussed choreographies ‘are examples of *ekphrases* of musical works; in other words, that ekphrases might exist based on depicting by movement, dance, poses (their choreography) of what was previously contained in the musical work’ (Drajewski, 2017: 11).

In addition, the term *ekphrasis* is associated with the term ‘transmediality’, which is ‘understood as a special kind of intermediality in which the multitude and variety of relationships ceases to be tangible as a sum thereof and becomes a process [...] In the relationships the prefix trans- carries in itself the semantic values through and across, has the sense of transposition and transformation’ (Kazimierska-Jerzyk, 2010: 61).

Transmediality thus means an attempt at translating the artistic means and practices identifying a given work as well as their relaying techniques onto the means inside a work representing a different artistic or scientific discipline. That what exists outside the medium makes it possible to translate or transfer the content and the artistic means from one medium to another. It is worth noting, however, that the elements of one medium permeate the context of another medium

together with the narrative, as it is not possible to isolate and move the narrative alone to a different medium (Załużski, 2010: 12).

*Ekphrasis* may serve as an analytical tool for examining/studying various relationships between literature/and music, dance, film, and painting/or visual arts. In that case a literary work is created and its author provides, in an artistic way, a detailed description of the work or its part/excerpt. *Ekphrasis* may arise in three different categories: as a reference to a work of art, a discourse on art, or an interpretation understood as an attempt at inter-semiotic translation.

## ***Ekphrasis. An attempt to redefine the term***

Research on the term *ekphrasis*, especially in literature studies, and adopting it in the field of arts, has already gained worldwide recognition. By contrast, the term *inphrasis* has come into use only recently and is gradually being isolated from the plastic arts. Undoubtedly, the two ‘mirror’ terms form the basis for creating their new definition: the artistic *ekphrasis* and *inphrasis*, which will secure their place in artistic discourse.

Taking into account the differing views on *ekphrasis* held in literature and other arts, I assumed that expanding the definition of *ekphrasis* by its other meanings would be the next step in the research on the intermediality of art. Following the lexical definition of *ekphrasis*, which ‘refers to the literary and rhetorical trope of summoning up—through words—an impression of a visual stimulus, object, or scene’ (Squire, 2017). I made an attempt at redefining the term, which may serve the analysis and interpretation of intermedial works.

The artistic interpretation of works of art, or references in a literary work, will create an artistic *ekphrasis*. Any author of a literary text describes not only the original work of art which left an aesthetic impression, but also provides this description with his or her subjective assessment, thanks to which the work of art acquires a new dimension: it is enriched with a new context and interpretation. The overriding aim of *ekphrasis* is to elicit emotions from the contemplation of a work of art, as a result of which, in the narrative layer, a description appears of such work or another type of reference to the perceived art object. As Paweł Bernacki writes,

*not only description, not only imitation and attempts at rewriting. Also overwriting, adding a part of one’s personality, making history, ripping a painting from the spatial vector and moving it to the temporal vector [...]*  
(Bernacki, 2013)

will form the basis for artistic *ekphrasis*.

The phenomenon explained may become an opposite entity when a work of art is created as a result of being inspired by another literary or artwork and their interpretation, occurring on emotional and symbolic levels.

In order to define these categories, *inphrasis* seems the most appropriate term, since it is fairly new, it was introduced in the twenty-first century and, so far, is used exclusively for analysing plastic art. *Inphrasis* intends to depict in a plastic artwork the emotions elicited in the receiver/creator by a literary work. Research on the concept *inphrasis* was undertaken by Teresa Radziejewicz, who compared both concepts (*ekphrasis* and *inphrasis*), claiming that ‘probably the development of this phenomenon is connected with the intensification of the phenomenon of the permeation of arts and with the expansion of visual culture in its broad sense and is its certain refinement’ (Radziejewicz, 2017: 167). The aim of *inphrasis*, according to Radziejewicz, ‘is not an illustration accompanying the text but displaying the emotion elicited by the literary work’ (Idem).

*Inphrasis* also became a research subject for Kamila Woźniak who, in her article entitled ‘The Ever-living Ophelias – Literature in Photography (the Czech *Inphrases*)’ (Woźniak, 2020: 67) analyses Czech photographs whose author captured the emotions elicited by the reading of a literary text.

The proper term for analysing intermedial works, including performance art, visual art, visual music, choreographed music using interactive visualization, is artistic *inphrasis*, a concept that I myself defend.

Artistic *inphrasis* (musical, choreographic, visual and plastic, respectively) constitutes an intermedial work, or its excerpts, which conveys emotions through appropriate artistic means, a result of interpreting the literary content or a different work of art (original work). Artistic *inphrasis* is a phenomenon of the permeation of meta-artistic material, being a reflection of non-verbal (musical, dance, film, visual) material or a verbal one in a non-verbal medium.

This article addresses the phenomena of artistic *ekphrasis* and *inphrasis*, whose presence will be shown in selected examples of intermedial works in which a multi-plane discourse seems idiomatic.

## **Artistic *ekphrasis* and *inphrasis* in selected intermedial works**

The first sign which indicates that a given work may be an *ekphrasis* or *inphrasis* of the original work is the title, which may suggest references, inspiration[s] or its transposition or, last but not least, interpretation. However, it is not always the case.

The principal aim of this research is the selection of intermedial works created in the twenty-first century whose extent of artistic expression was examined which, as a result of the process of transmedialization, arises first in the receiver, and then in the creator of a new work.

In order to draw their distinctions clearly, the author chose intermedial works – literary, musical, choreographic and audio-visual – showing these regularities as objects of her own analyses.

*Artistic ekphrasis* is created e.g., by intermedial scores arising from structural musical-literary filiations. The notation of such literary work is usually unconventional, and its inter-semiotic characterization is manifested in the act of perception. In poetry, we may find an artistic description of a plastic work, and we may also encounter imitation of techniques and generic assumptions typical of Baroque (fugue), or explicit references in the form of a reference to music (voice dialoguing). The *ekphrasis* will cover the contemporary literary works which comprise elements of notation or music technology, or those whose structure resembles a musical form or genre or contain other elements referring to, or describing, music. ‘However, one has to bear in mind that it is not possible to literally transpose a musical work into a literary one, but only to interpret, in a certain manner, the musical structure in literature’ (Karwaszewska, 2019: 243).

A concrete example of a literary work which shows these designators are the sonnets from the collection of poems *Pięćdziesiąt Cztery Sonety* by Cezary Sikorski. The sonnets contain implicit references to Bach’s *Kunst der Fuge* and explicit references to music in general, making a case for considering this work as an intermedially-premeditated poem-score. The title of this poetry book does not suggest the receiver that it could refer to, or describe, something belonging to a medium other than literature. Yet the poet devoted the fifth chapter of his cycle of poems to Bach’s *Art of Fugue*, combining in it the musical elements with a philosophy of life. The poet alluded, in an idiomatic way, to the formal structure of Bach’s work; the cycle comprises 20 sonnets (counterpoints, including the thirteenth one divided into two separate *rectus* and

inversus), which indicates constructional analogies with a musical cycle (19 fugues and canons entitled counterpoints). An overt reference is included in the titles of the sonnets, which contain Latin numbers in their names, indicating the names of fugues (Contrapunctus) or canons. Meanwhile, the order of presenting individual sonnets was changed, which the poet perhaps tied to Bach's not imposing any order of counterpoints in the cycle. The titles of the sonnets also contain other musical terms such as names of intervals in which strict imitation, *rectus*, *inversus*, *in stile francese* and chorale occur. Essentially, music becomes the main theme of the poems, providing their content with musical terminology to which the poet assigned a symbolic meaning, e.g.:

*Contrapunctus 10, Alla Decima* (o byciu osobno i fałszywym temacie) ['on being separate and of a discordant theme']

[...] oto ciężar bycia  
[behold the burden of being]

ponad miarę zaklęć; w nim fałszywy temat,  
[beyond spells; in it, a discordant theme,]

który się porusza po kolistych drogach.  
[which moves on circular paths.]

Lecz nie gubi celu. W szkicach z odrębności,  
[But does not lose its purpose. In sketches of distinctiveness,]

solo a capella, jest dystynkcja dźwięków  
[solo a capella, there is a distinction of sounds]

chropowatych od bólu. Tam się fałsz ukrywa  
[roughened from pain. There hides the discord]

w interwałach prawdy. Choć pomija fugę,  
[in the intervals of truth. Though omitting the fugue,]

tylko z nią powraca; [...]  
[(the discord) returns only with it;]

Musical inspiration is also visible in *Preludio e Fughe* by Umberto Saba, where the Baroque genre is signalled in the title (with the number of parts in the subtitle), functioning as an intermedial substitute and creating an artistic *ekphrasis*. In certain fugues in this cycle, their author additionally indicates the composition of the ensemble. This work represents an example of an artistic musical interpretation of the fugue form, in which the literary text may function independently, without taking into account the musical intertext. The literary cycle includes one prelude and 12 two- and three-part fugues, in which the author addressed the constructional assumptions of the cycle *Das Wohltemperierte Klavier* J.S. Bach. Besides the implicit references to the form of the musical work, the author also makes a reference to Bach's compositional practice in *Kunst der Fuge* based on increasing the complexity of polyphonic techniques in subsequent pieces. The presence of the musical medium in the literary one, and the intermedial relationships being built between them are additionally signalled in graphic form: the coexistence of roman and italic types reflects, respectively, the theme and the counterpoint in two-part fugues, whereas in three-part ones the coexistence of roman type and part number in the form of Arabic numerals in brackets. Music also appears in the content of the prelude through thematization, by means of using in the text the musical descriptions such as *voci discordi*, *voci invano discordi*, *estremi accordi* or *in nuovi dolcissimi accordi*.



The most obvious examples of artistic *inphrasis* may be found in the choreographic works which are motive interpretations of emotions captured in musical, film or plastic works, frequently including elements of supplementation. A choreographic work will not be a simple transposition of a musical work, aimed at a faithful translation of the musical structures into the choreographic ones. A choreographer or a visual artist, composing a new work, makes a reinterpretation of the original work, altering its selected elements.

Choreographies created for the musical pieces that were not composed with translation into the language of dance in mind, as they were independent compositions, are quintessential examples of artistic *inphrasis*. They are choreographic works created with visual tools which additionally enhance the attributes of interpretation of movement or replace human presence. The choreographer interprets the music, while the visual artist, both of these media: music and dance. Thus, on the basis of a musical composition, created is an interactive intermedial work of (performance) art enriched with an emotional layer reflected in body gestures and movements as well as in visual effects. Such a project is a result of the interdisciplinary synergy among the creative team, including composition, electronics, theoretical music analysis and visual art. The resultant *inphrasis* may pertain to various elements of the musical composition: its form, musical style and character, musical elements, ensemble composition, title, extramusical programme, compositional techniques used, dramaturgy and expression.

An intermedial performance art, N44n is an example of choreographed music using interactive tools and digital media, which may be interpreted as artistic *inphrasis*. In this work we deal with intermedial relationships, which are being formed at the musical composition level (the piece AdNaan by Jacek Grudzień), choreographic composition, and then the level of the video projection generated in real-time by the VJ.

The basic idea of the project is the interactivity between the dance and the music, which allows the artists to seek for new means of expression. Interactive dance imposes completely new requirements on the dancers; it is, first of all, a visual medium. The created audio-visual work is a synergy of the motive interpretation of music, interactive visualization of the music-inspired improvised movement, as well as interactive visualization. Each of the performers interprets at the emotional and the symbolic levels of a specific medium. The musical layer was subjected to choreographic interpretation and recorded in video form. The resultant work became in turn an artefact for subsequent creative implications for the visual artist. The choreography projected on a moving fabric was digitally manipulated by means of such computer software as TouchDesigner and Resolume Arena, and complemented in real time by the movements of the dancer, who sets the fabric in motion, changing its shape and its original representation.

Another example of *artistic inphrasis*, this time built on the basis of the relationships among non-verbal media, is Katarzyna Kwiecień-Długosz's composition Paplanina. Four serigraphs for tape (2017), whose extramusical visual elements are integrated with the musical piece. Here we deal with the author's own interpretation of the original medium in audio-visual form, additionally supplemented with emotional and symbolic categories. This electroacoustic composition was inspired by the four-part cycle of graphics by Jacek Papla (1. Runes, 2. Spheres of sensitivity, 3. Votive offerings, 4. Marks). The piece does not have any musical notation; it is 'a certain intermedia score [...] being created as an outcome of the structural musical-visual filiations' (Karwaszewska, 2020). Kwiecień-Długosz does not deprive her composition of the original medium; she uses it for creating an integrated artistic message, a 'media hybrid'. Paplanina is a cycle of short pieces, which belong to the visual music genre in which, besides the musical layer (tape), the receiver follows the visual, computer-generated layer in the form of animation. The structure of the piece is developed on the basis of sound and image synchronization, where the sound impulse becomes the point of synchronization. Marks, the title of one of the graphics, analogous to the title of the short piece, inspired the

composer to look for marks in the painting and reflecting them in the musical layer. ‘The superordinate symbol is the number three, which alludes to the three graphics used in the short piece, three shapes of windows (circle, triangle and square), three different roof types, the ABA’ ternary form, the dominant width of the interval of a third.’ (Ibidem). The title of the short piece thus fulfilled one of the necessary conditions for *inphrasis* (Figure 1).



Figure 1. Znak II, 2011, graphics by Jacek Papla. Used with permission from author.

As commissioned by the music choreographer Beata Oryl, one movement of the composition Runy was rearranged for solo cello and tape. On the basis of the new work entitled Soliloquium, a new motive choreography was created which, in turn, became the source material for creating a live performance art under the same title. Its interactive choreography was created on the basis of live animation, the so-called visual music with featuring live synchronization of sound effects and lighting with the artist’s body movement. The dancer, who interprets the cello part, is supplemented with lighting effects (tape sounds) which themselves are interpreted through interactive visualization, creating a moving scenography.

This work is thus another example of artistic *inphrasis*, in which the rhythm and the lighting become the main formative factor of the work, and a generator of emotions.

## Conclusion

Taking into account the issues related to the phenomena linked to intermediality, as well as the variety of terms, we can see the complexity of the subject in question when analysing the relationships between the disciplines of creativity.

For this article, I chose the notions of *ekphrasis* and *inphrasis*, which have been functioning so far in the area of literature, comparative and interdisciplinary studies, and mainly pertaining to verbal-visual relationships, as an attempt to presenting an original redefinition of the term *ekphrasis*. Its formulation was unknown in the field of arts research, so I so I intended that the terms artistic *ekphrasis* and *inphrasis* could be placed in a terminological network, serving the analysis and description of the intermedial narrative. The terms have been juxtaposed and compared with the already existing phenomenon of *ekphrasis*.

Several typical examples of artistic *ekphrases* and *inphrases* have been presented, demonstrating an artistic reflection of a literary, musical, plastic or choreographic material in

another medium, thus categories of interartistic relationships in the material coming from different sign systems (verbal and non-verbal). Among artistic *ekphrases*, recalled have been those literary works that fulfil the semantic functions of the so-called poem-score. The literary text refers to a particular musical work and reinterprets it, thus shaping its more complex sense. Here, the reference to the musical medium is an intentional act which makes it possible to interpret the notation, compositional technique, style, structure, title and even the whole piece through the prism of the medium being referenced. The phenomenon of artistic *inphrasis* has been discussed using the example of selected choreographies and musical pieces indicating the presence of the relationships among different media. In the case of interactive choreography, we are dealing with triple reference, as the visual artist uses, and draws inspiration from, two media – the musical one and the choreographic one – yet the symbolic structure of the final artistic result refers, first of all, to the original, or the musical composition.

Both artistic *ekphrasis* and artistic *inphrasis* may find potential use in a discourse including issues relating to intermedial relationships. These phenomena may also be used for analysing the media present in operas (also intermedial ones). For instance, semantically-loaded keywords used in a libretto, which contain general references to music and dance, may fit the category of *ekphrasis*, while wherever in the musical or choreographic layer of an opera (the nonverbal medium) interpretations of words are used for the experience of the text's expressiveness, they illustrate a case of artistic *inphrasis*.

The presented analyses of works show that my own definitions of the phenomena of *ekphrasis* and *inphrasis* not only indicate the connections between music and dance, graphics or poetry, but also with other arts or media, among which contemporary performative aesthetics assumes an essential role.

The proposed interpretation of intermediality is an attempt at a scholarly discussion on the dynamically changing structure of contemporary art (including music) connected both with individual artistic pursuit and the tendency in the culture in which the possible, the virtual and the fluctuating gains significance.

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# Electroacoustic Performance as an Act of Creation: in praise of the *bric-à-brac*

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**Abstract.** This paper first achieves a rapid historical survey of the technologies of electroacoustic music, analog and digital, creating a complex bric-à-brac [hodgepodge] fundamentally constitutive of the studio/stage experience. Then, the article presents various current trends [recent interfaces, keyboards, MPE]. The new possibilities of the current generation of equipment may, at last, be able to offer very good performative possibilities to the digital music studio, perhaps allowing a renewal of some of the most interesting analog practices. This complex situation can be understood and perhaps mastered with two conceptual approaches, the vocal and the percussive models. In turn, this leads towards an ecological approach to electroacoustic music practice and analysis.

**Keywords.** Electroacoustic Music; Studios; Musical Technology; Analog; Digital; Current Trends; MIDI; MPE; Ecology.

## Introduction

*Il n'y aurait pas à se scandaliser de la disparition de l'interprète si avec lui ne s'abolissait pas une partie du 'merveilleux musical' (Boulez 1966: 207)*

Since the 1960s, electroacoustic music has aimed towards live performance, both with fixed media pieces with sound distributions systems or different “acousmoniums”, and with live tools such as synthesizers, microphones, sound sources and various real-time sonic treatments. Since the mid-1980s it also became possible to perform totally digital pieces live and carry on the analog live habits and methodologies.

In the wake of Boulez, Berio, Manoury, Murail, Dufourt and many more, real time digital music was the musical challenge of my generation born in the 1960s. Now is perhaps a good time to reflect on forty years of digital live performance. I often wonder if we did attain our goal. Did real time technology really solve the problems of refined musical expression of electroacoustic music, limited for so long by poor sonic tools, compared to acoustic musical instruments or sophisticated tape-music? Many great composers (Vaggione, Stroppa, Chion...) do not think so and still prefer mostly fixed media pieces.

On the other hand, today the sonic possibilities are truly immense, both for the studio and for the stage, and often very pleasing to the ear. But are we up to the task of making quality music with those technologies? Or are we a bit lazy still or simply drowned in too many options? In this regard, the current resurgence of modular synths, with their rather “poor” analog sounds

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and limited sonic options, but also their many performative possibilities, seems to make some sense. Could they be more than just a commercial push to keep the technology market alive?

This article argues that live composition, improvisation and performance are now, more than ever, possible and that we may achieve satisfactory artistic results without lowering our musical expectations.

## Musical Performance in analog electroacoustic music

*Nous avons, et nous continuons d'avoir une approche tout-à-fait instrumentale de la musique électroacoustique. Ce n'est pas du tout, comme on peut le croire, une musique de machines: nous utilisons les machines comme les chanteurs utilisent leur pharynx! [...] Ces idées étaient tout à fait naturelles. Elles ne faisaient que transposer des gestes très simples, musicaux, sur un plan électromécanique. (Julien 2004).*

There are several historical steps in “acousmatic” and “fixed media” electroacoustic music that have characterized some of the performative habits that are still used today. Let’s discuss some important elements.

In the 1930s and 1940s, the live performance made with electric instruments was, as for acoustic instruments, an usual practice. At that time, a curious musician (e.g., Varèse) could find a large variety of electric and electro-mechanical instruments, such organ, guitar, some pianos, the Theremin, the Ondes Martenot, the Trautonium and a few others. Less obvious but even more important, the music scene was very much influenced by the use of microphones, amplifiers, radios, turntables, mixing tools, oscillators, filters, compressors, echo and reverberation chambers (physical rooms), and so on. All of these devices implied real-time performance, artistic, and technical skills. For instance, in 1936, Pierre Schaeffer, then in charge of the professional formation of the technicians at Radio France, wrote a series of *Studies for Musician-Mixers* which showed that he, and many of his colleagues around the world, were very aware of the aesthetic impact of electric technologies on music. Since 1941, he closely collaborated with his assistants (e.g., Henry, Poullin, Tanguy, de Coupigny) because he found in them the right mixture of technical skills and musical sensitivity.

Before any objection may arise to the reader, I am well aware that Schaeffer, in his idea of *musique concrète*, turned his back to *instrumental* electroacoustic music. It is no small feat that he realised early on 1941-1944 that the recording and manipulation of sound could radically reverse the musical process. In his view, sound recording equipment allowed a reversal of the traditional approach to composition (1952: 25). He proposed to compose differently than instrumental music and to find other, non-instrumental, ways. But he used tools in a creative manner if –hidden in his studio in 1948– he imagined an “organ of turntables” a veritable kind of sampler (1952: 7-8).

Something similar can be said for Eimert, Bayer and, in particular, Stockhausen in the WDR Elektronische Musik Studio. Eimert and Bayer first conceived a rather instrumental electric studio with the help of Meyer-Eppler and Trautwein (Stockhausen 2001). Later, perhaps with some influences of Schaeffer’s example, they realised the need of a more ambitious perspective in the exploration of new sounds. Stockhausen joined them from 1953 to 1959, first providing methods for additive sound synthesis using the limited analog tools of the time, and from 1955 with subtractive synthesis (filtered impulses and noises). Even if this was not always explored

in detail, the actual practice of electroacoustic music forced the composer to be more conscious of the “studio ecology”<sup>2</sup>: the relation between the composer and the numerous devices and to the systems as a complex whole. For some figures (e.g., Henry, Stockhausen, Koenig, and Zuccheri) this aspect was exciting, while for others (e.g., Schaeffer, Boulez, Berio, and Nono) it was cumbersome and tedious.

## The analog electroacoustic studio, 1960-75

What did a musician find at the time of the first technological plateau,<sup>3</sup> around 1960? Figure 1 may provide an impressionistic representation of several electroacoustic studios.



Figure 1. Schaeffer in the Paris Studio (1953), Henry at home (2008), Stockhausen in the WDR Studio (1994), the reproductions of Siemens Studio (c. 1959) in Munich museum and RAI studio in Milan (c. 1958).

First, as in the 30s and 40s, one could continue to find the electric –but rather traditional– *ondes Martenot* with their ribbon, keyboards, levers, tone buttons, and various speakers. There were electric organs of numerous kinds, eventually with rotating Leslie cabinets, perhaps some other types of keyboards or an electric guitar and amplifier. There were also microphones, turntables and tape recorders, plate/spring reverbs, amplifiers, compressors, filters, scissors, adhesive and tapes, and many sound sources. It is also important to note that Schaeffer and his colleagues were experienced radio producers. Performers of *musique concrète* were experienced in the aspects of the production of acoustic sounds, their mixing and recording. This implies that there always was a performance aspect in those early pieces: the composers were right from the start

<sup>2</sup> By “studio ecology” I point out that an electroacoustic studio is a complex system, with all its components interacting in complex and often unpredictable ways, somewhat like a complex biological system. It is more than just a matter of ergonomics: there are some emergent properties of those systems.

<sup>3</sup> Since the late 1970s up to now, I have been very active in recording studios of all types. Most of the information gathered here comes directly from my experience. Some publications cited along the article can help the curious reader: *Computer Music Journal* (MIT Press), *Keyboard Magazine* (CMP), *Sound on Sound*, *Electronic Musician* are all ideal media to keep up with technology, not forgetting YouTube or the proceedings of the various international electroacoustic conferences (ICMC, EMS, JIM...).

concerned with artistic direction, dramatic staging and quite sensitive to musical performance, even if the original sound quality was poor (Schaeffer 1952: 10-12). To this traditional set-up, the electronic music studio started to include oscillators, noise sources, and filters, and composers started to use faders, plate reverbs, tape recorders, scissors, adhesive and tape, as means to shape and enrich the raw sounds of the oscillators. Ten years later, the complexity of these devices has increased and the studios had incorporated a large variety of effects such as a ring modulator, synthesizers, specialised electric instruments of different kinds.

Studios rapidly became quite cluttered. All these devices amassed together created an environment with a complex ecology, a *bric-à-brac* (hodgepodge) chock full of tools of all kinds<sup>4</sup> that the user had somehow to master. It is a crucial aspect: an electroacoustic composer, perhaps with an assistant or two, had to gain experience with the devices and tools, making sense of the interaction with individual modules, in order to control the final aesthetic result. A difficult equilibrium is established between musical aims and actual practice, which requires manual expertise<sup>and</sup> labour. Stockhausen speaks about the *Gesang der Jünglinge* sessions:

*I sat in the studio with two collaborators. Two of us were handling knobs: with one hand, one of us controlled the levels and, with the other hand, the speed of pulses from a pulse generator which were fed into an electric filter; a second musician had a knob for the levels and another for the frequency of the filter; and the third one would manipulate a potentiometer to draw the envelope - the shape of the whole event - and also record it. [...] So, everyone had a paper on which different curves were drawn. We said 'Three, two, one, zero' started a stopwatch... we'd all do our curves, individually produce one sound layer which was the product of our movements; and this resulted in an aleatoric layer if individual pulses which, in general, speeded up statistically. But you could never at a certain moment say, 'This pulse will now come with that pitch.' This was impossible to predetermine. Then we'd make a second, third, fourth, fifth layer - the number of layers was also determined and I'd synchronize them all together and obtain a new sound (Mannion n.d., see also Stockhausen 2001).*

The impact of such practices on musical thinking was important and led to a key moment, between 1955 and 1960, when serial composers started to reconsider their aims and methods. It can say that, together with a better experience of the performance of complex serial music, these practices led directly to post-serial music. Bruno Maderna evoked the aesthetical impact of such procedures in a conference in Darmstadt:

*The meeting with electronics means has really disrupted my relation with the musical material. [...] When I started to compose with electronic means, I was mainly afraid of using them inappropriately; I decided to abandon myself to my musical intuition rather than letting myself be guided by rational considerations (Maderna 1957).<sup>5</sup>*

After a hard-working first phase, one must say that composers and their assistants became quite proficient in the studio and important masterpieces were created in these years (*Gesang der Jünglinge* by Stockhausen (1956), *Artikulation* by Ligeti (1958), *Notturmo* by Maderna (1956),

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<sup>4</sup> If we compare Pierre Henry's or Stockhausen's whole houses or, even, all studios (that I have never visited) with Boulez's early criticism (1966: 28-86), I can find that this *bric-à-brac* is a kind of positive situation, one that allows innovation despite its initial clumsiness.

<sup>5</sup> "La rencontre avec les moyens électroniques a véritablement bouleversé mes rapports avec le matériau musical. [...] Lorsque j'ai commencé à composer avec les moyens électroniques, j'avais surtout peur de les utiliser de manière inadéquate; j'ai décidé de m'abandonner à mon intuition musicale plutôt que de me laisser guider par des considérations rationnelles" (author's translation).



*Visage* by Berio (1961), *Violostries* by Parmegiani (1964), *Presque Rien* by Ferrari, (1967-70), *Jeïta* by Bayle (1970)). The next step was to bring this music creation on stage, in front of a public, starting with Stockhausen's *Mikrophonie I* (1964). This need leads quickly to ergonomic improvements of the devices and the invention of the modular synthesizer as an ergonomic electronic studio and to specialised effects (Laliberté, 1994). This proficiency of the musicians and the adequacy of their equipment reached a definitive plateau in 1975. The magnificent book *Electronic Music Systems* by Allen Strange (1982) sums the musical expertise of this period, both aesthetical and technical.

## Drawbacks of analog equipment

Obviously, even with the best equipment of the 1970s, analog studios had many drawbacks for music composition, and as a student in the early 1980s, I well remember the problem of aging of equipment. To name some drawbacks: the poor global sonic quality; the limitation of sound palette limitation (most sounds were variations of saw and square waves); the limited number of oscillators leading to a poor additive synthesis; simple and poor ADR or ADSR envelopes; the lack of touch sensitivity of organ keyboards (except for Buchla or expensive systems); the limited patching options (especially compact systems such as the Minimoog); the general instability (oscillator drift, mechanical and calibration problems...); the noise; the poor quality of cables; the fragility of potentiometers making performance difficult; the overall fragility of equipment (heat, cold, dust, transportation); the calibration and maintenance costs that were problematic for single musicians.

On the other hand, the presence of these problems led to a rapid multiplication of various devices, each with its own characteristics, in order to compensate for individual weaknesses. ARP oscillators and filters, for instance, were a third more stable generation of oscillator than the original Moog devices. The multiplication itself of alternative modules contributes to the *bric-à-brac* effect and augmented the complexity of the studio (Strange, 1982). The more ambitious devices could become complex as shown in Figure 2.

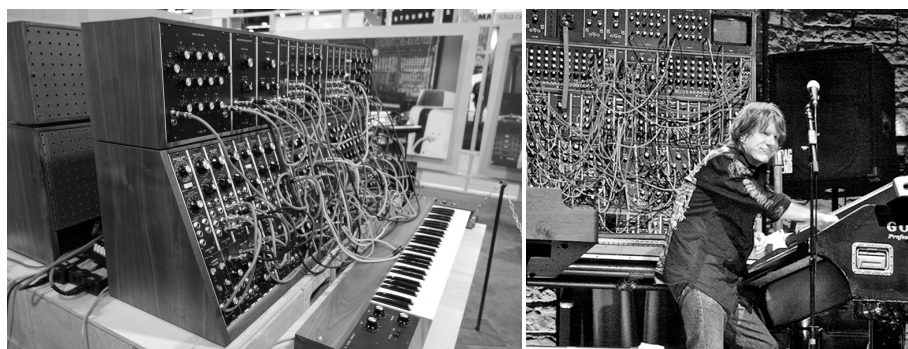


Figure 2. A medium-sized Moog System 55 (1973) and Emerson's "Monster" synth (1971)<sup>6</sup>

Since 1950s, the massive popularity of electric equipment and its integration in song, rock or dance music was both helpful and problematic. On the one hand, it contributed to create a small but genuine industry: manufacturers such Moog, ARP, Oberheim, Gibson, Fender, Vox, Marshall, Yamaha, Roland, Korg, became important companies of popular culture. After 1966, this market greatly augmented the amount of money invested and at the same time lowered the

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<sup>6</sup> The 55 now costs around \$35000, much less than the \$150000 or more of the Emerson "Monster" synth (Moog 2021).

costs. More diversified and better equipment<sup>7</sup> was produced, mostly for pop music, but can be found as well in electroacoustic studios (Figure 3).



Figure 3. Schaeffer with his (reluctant?<sup>8</sup>) hand on a Moog module atop a Coupigny.

Therefore, from this point, it starts to be impossible to separate popular music and *research music*<sup>9</sup>. With such tools and under commercial musical pressures<sup>10</sup>, some music practices within electroacoustic music became quite popular<sup>11</sup> and more simple. Music made with commercial synthesizers which became popular after Wendy Carlos's deserved successes with *Switched-on Bach* (1968), became more and more often as conservative variations of organ/piano music, producing more "music of notes", although with an electric timbre, than ambitious electroacoustic sonic constructions. Moreover, it occurred a paradoxical loss generated by the appearance of polyphonic instruments around 1975: despite their harmonic convenience, the left hand was now busy playing basses and chords, not available anymore to modify the sound parameters like it used to be with modular or compact synths.<sup>12</sup>

Despite these limitations, the analog plateau was musically important and keeps up to now a positive image: it is sometimes idealised, especially after the aggressive marketing campaign for neo-analog musical equipment. Analog modular synths are trendy, once more.

## Musical Performance in digital electroacoustic music

Let us now shed some light on the digital version of the electroacoustic studio, its history and its drawbacks.

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<sup>7</sup> Commercial concerts imposed a professional sonic and instrumental quality of the equipment.

<sup>8</sup> I heard him denouncing synthesizers, much to our dismay in Laval University's electroacoustic class, as being the "atomic bomb" of music.

<sup>9</sup> I doubt that, from the beginning of 20<sup>th</sup> century, a strict distinction could be found between the two musical contexts.

<sup>10</sup> Some moments of Psychedelic Rock, Jazz-rock and Progressive Rock can often be considered as popular electroacoustic music. I would argue that this is in part due to a McLuhanian effect: common tools can lead to similar music.

<sup>11</sup> The baby-boomers were fond of novelty: for instance, the Phillips disc collection "Prospective 21<sup>ème</sup> siècle" had a broad diffusion.

<sup>12</sup> Some synths still allowed refined musical control for instance the Yamaha CS-80 (1976) with its polyphonic aftertouch, ribbon, pedals and very good programming.

## Typical setups/environments in 1985-2000

The unavoidable<sup>13</sup> computerisation of the world brought many solutions to the previous problems for live performances<sup>14</sup>: a consistent sonic quality (with the typical digital sounding<sup>15</sup>, e.g., Fairlight CMI, Synclavier, Dx-7, D-50, M1); a more diversified sound palettes (new types of synthesis, hundreds of sampled waveforms, and richer envelopes); improved communication standards (MIDI, wireless mics and guitars, MIDI allowed easy communication with the computer and other sound modules; great development of softwares (e.g., sequencers); the development of digital toolkits and stable programming environments (Csound, Max, Supercollider, GRM Tools); expansion of basic musical controls (generalisation of velocity and after touch, standardisation of pitch and mod wheel / joystick, expression and sustain pedals); reduced hardware maintenance and greater dependency on software stability; reduction of overall costs<sup>16</sup>.

Thus, small and home-studios became the new basic means of music composition, principally for their comfort and for the luxury of time that they allow, for a very decent, if not totally professional result.

After the analog plateau, the digital MIDI studio became an important standard and remains so, with improvements, to today. Considering the rapid evolution of digital technologies, this is quite an achievement considering that the MIDI standard is now almost 40 years old. The inevitable success of the digitalisation of musical instruments coinciding with the invention of MIDI and the considerable development of the home studio had an impact at several levels. Let's review some important steps.

1) Composers, both in avant-garde and popular music, started to work with affordable small systems, often at home rather than at major studios (Barrière, 1986). Tristan Murail constitutes an early influential case: much of his electroacoustic music was made in his home studio and many of his significant instrumental pieces were written with his personal digital environment (which became Ircam's Open Music).

2) Those early systems, because of a reduction of costs and a general tendency toward leanness, became simplified in some respect. The famous DX-7 from Yamaha (1983), and a few others became the new standards (Table 1).

Table 1. Pros and cons of the DX-7

Pros	Cons
Digital FM synthesis (sonic richness and some realism)	Complex synthesis paradigm, new and unknown at the time
	Very limited visual display (2 lines of alpha-numerical LCD) for a complex synthesis. Even worse with the rack versions (TX-816, Tx81Z...)
With velocity sensing	Limited velocity (0-100, not even 127)

<sup>13</sup> Not only a satisfactory industrial option, but this was also unavoidable because digital tool, once developed, are much cheaper to produce and to maintain than mechanical or electrical technology, much easier to improve through software and allow much more complexity for reduced costs.

<sup>14</sup> I do not deal with *classical* computer music in this paper as it was not performed but programmed *out of time*, to speak like Xenakis.

<sup>15</sup> The brightness bordering on rashness of those early synths was due to poor digital to analog converters and problematic filters or to the low 8-to-12-bit resolution.

<sup>16</sup> For instance, since 1970, organs and synthesizers cost between \$1000 and \$3000. The prices have not changed! This means that in terms of "absolute" value, they are much cheaper now than in 1970.

16 voices of polyphony	But monotimbral. No complex orchestration possible directly, only in re-recording
Many real-time controls possible: pitchbend, modulation, sustain, volume pedal, volume fader, data entry, breath control	Only 2 physical faders and 2 wheels, plus the capacity to plug 2 pedals and a breath controller
Aftertouch	Mono aftertouch
32 presets	Can lead to laziness
Fully programmable	But complex to learn

Because of the complexity of programming, and the limited programming interface, and because of the high quality of the *presets* prepared by David Bristow and others, many users limited themselves to a lazy organ/piano playing (as with polysynths) and using only *presets*. Thus, specialists with a side business of synth programming could flourish.<sup>17</sup> Other companies rapidly understood this and made *preset-only* “synths” (Roland D-50, Korg M1...) and samples readers. Today, those three synthesizers remain the most sold and bought. Most of the standardisation of general MIDI and basic daily use comes directly from the choices made at that time.<sup>18</sup>

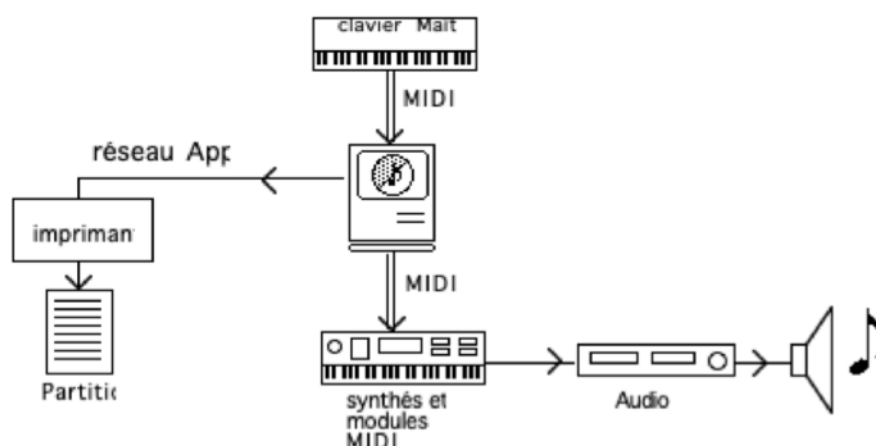


Figure 4. The lean MIDI

Studio, 1985

3) This standardisation led to the *lean* home studio paradigm: a synth/master keyboard, a computer, and a MIDI interface and a digital (or analog) recording device for the final *mixdown*. Perfectly suited to the “all-digital” sound of 1985-90. Compare the “messiness” of a big modular system (Figure 2) to the ‘lean’ MIDI setup (Figures 4 and 5), not forgetting all the rest of the necessary equipment: amplifiers, reverbs, mixers, other instruments, and microphones.

<sup>17</sup> It was already the case for high-profile analog systems and modular synths since the late 1960s.

<sup>18</sup> Global volume is controller 7, modulation is controller 1, sustain pedal is controller 64, etc. The sound bank of General MIDI is closely related to the Roland sound banks of the 1990s.

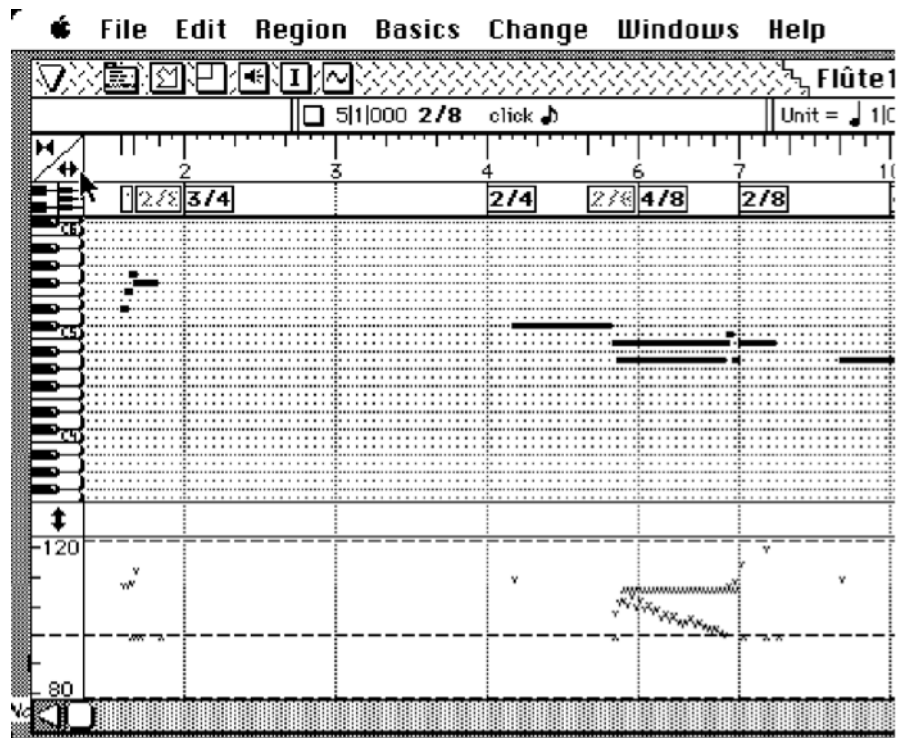


Figure 5. Editing screen, MOTU Performer, 1989

4) The *lean* studio became soon too limited. Sampling became prevalent around 1990, implying or at least inviting to some acoustic home recordings. As a kind of African American *musique concrète*, Rap/Slam/Hip Hop needed real voices and sounds, as well as cheap<sup>19</sup> synthesizers and drum machines.

5) Voices, guitars, wind instruments and acoustic percussions were still relevant, for most composers, in particular if we consider the “grunge” or “unplugged” trends of the 1990s. This aspect gave a great incentive to produce samplers, such *Chamberlin* (1948), *Mellotron* (1963), *Fairlight CMI* (1979), *Synclavier II* (1983) and the affordable ones, able to record change the way people worked: *Emulator*, *Ensoniq Mirage* and in particular *Akai MPC-60* or *S series*.

6) This tendency quickly led to the creation of the audio version of the previous MIDI sequencers: the DAW (digital audio workstation) such *Pro-tools* (1989), *Cubase Audio* (1991), *Logic* (1993), and its plugins.

7) Together with these new platforms, it has been developed other digital recording devices and audio supports such *VCR/Betamax*, DAT, ADAT, CD, DVD, USB sticks. In this way, the recording studio became largely digital.

8) In turn, this plural evolution leads to develop better acoustics for home studios, in order to record sound material rather than using sound banks. This change is most important in electroacoustic music where a personal sound bank is required.

What I’m demonstrating here is that from the *lean* workstation, settled in 1984, the electroacoustic studio became a “mixed” *bric-à-brac* including both analog and digital equipment.

<sup>19</sup> Out of economic necessity at first.

## Since 2005

Since the beginning of the new millennium, this *bric-à-brac* tendency got faster: new software and hardware come up almost daily and the best of them become integrated in the studio ecology. To name the most important novelties that emerged during the last 15 years: OSC/UDP, Ethernet, Bluetooth, HTML, Internet and wireless audio systems; new software platforms (Live, ChuckK, Falcon); new wirings (USB MIDI, MPE / MIDI 2.0); an increasing stability of the main programming platforms and software (*Max, Csound, Supercollider, Pro-Tools, Logic, Cubase, Finale, Sibelius* and MIDI in general)<sup>20</sup>; better of interfaces for pads and faders (the legacy of *MPC-60*); an improvement of gestural interfaces, traditional (keyboard, wind, brass, guitar, ribbon, faders, levers, pedals, joysticks, ribbon ...) and new inventions (Roli, Expressive E, Arturia, Eowave, Leap...); and a surprisingly significant return of analog and/or hybrid modular synths (Eurorack, Buchla, Moog, Behringer, Korg/ARP...) sometimes with very low costs.

### **Typical setups / environments today: a complex ecosystem?**

For instance, let us have a look to my small but professional studio (Figure 6) and the list of material in there (Table 2).



Figure 6. Studio La Grainerie in 2021

Table 2. Equipment of Studio La Grainerie

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<sup>20</sup> This means that time invested by the users is not wasted.

### Main setting

- Computer, screens and person position at the center

### Inputs

- Plain input modules: keyboard, mouse, trackpad.
- More advanced inputs: webcam, joystick, gamepad, trackball, iPad, smartphone, graphic pad, Leap Motion using the plain USB, Ethernet, Bluetooth or WIFI
- Master keyboards or MIDI/MPE/USB/Bluetooth instruments = intelligent (?) piano /organ /synth /guitar /sax / trumpet / marimba/ drums
- Microphones
- Electric instruments/hardware (guitar, bass, hardware synth (analog, hybrid or digital))
- Control pedals (sustain, volume...)
- Percussive pads (fingers or sticks)
- Wind/brass/breath controllers
- MIDI faders, rotaries, pedals and buttons...
- Sound cards ADC
- MIDI 1.0 or 2.0/ MPE / musical USB/Ethernet/Bluetooth /WIFI modules
- Other interfaces: atypical controllers, self-made devices... Using the above protocols...

### Outputs

- Images on screens/projectors
- Sound on computer speakers
- Sound cards and DAC
- Mixing desk and sound correction devices
- Speakers (2 to 8, or more) and sub-woofer(s)
- MIDI/USB/Ethernet/Bluetooth/WIFI output for specialised musical/sonic devices
- Plain USB/Ethernet/Bluetooth/WIFI as well for more general engines, actuators, devices...

### In the computer: another level of metaphors

- DAW = intelligent multitrack tape machine and its numerous plugins
- Complementary specialised software driving the sound cards (various sound banks, score editors, digital simulation of old analog equipment, synths, effects...)
- Programming languages and toolkits (Max (Live), SuperCollider, Csound, GRM Tools).

This is quite a lot but not even luxurious by today's standards.

The crucial question is how to make sense of all of these? Do we really deal with this richness of choice, or do we still react in the lazy too-many presets attitude inaugurated by the DX-7? For instance, let's look at part of the list of plugin presets available here for the DAW and other software (Figure 7).

Addictive Keys	L1 limiter Stereo_Effect	S1 Imager Stereo_Effect
AmpliTube 4	L1+ Ultramaximizer Stereo_Effect	S1 MS Matrix Stereo_Effect
AmpliTube 5	L2 Mono_Effect	S1 Shuffler Stereo_Effect
ARIA Player VST Multi	L2 Stereo_Effect	SampleTank 3
ARIA Player VST	L3 MultiMaximizer Mono_Effect	SampleTank 4
AudioTrack Mono_Effect	L3 MultiMaximizer Stereo_Effect	Saphira Mono_Effect
AudioTrack Stereo_Effect	L3 UltraMaximizer Mono_Effect	Saphira Stereo_Effect
BassStation	L3 UltraMaximizer Stereo_Effect	Saturation Knob
BassStationStereo	L3-LL Multi Mono_Effect	SatX
Black76	L3-LL Multi Stereo_Effect	Sibilance Mono_Effect
BrickwallLimiter	L3-LL Ultra Mono_Effect	Sibilance Stereo_Effect
BritishChannel	L3-LL Ultra Stereo_Effect	Sibilance-Live Mono_Effect
BusCompressor	L316 Mono_Effect	Sibilance-Live Stereo_Effect
C1 comp Mono_Effect	L316 Stereo_Effect	Siren
C1 comp Stereo_Effect	Leslie	Smack Attack Mono_Effect
C1 comp-gate Mono_Effect	Lie	Smack Attack Stereo_Effect
C1 comp-gate Stereo_Effect	LinearPhaseEQ	SoundShifter Pitch Mono_Effect
C1 comp-sc Mono_Effect	LinEQ Broadband Mono_Effect	SoundShifter Pitch Stereo_Effect
C1 comp-sc Stereo_Effect	LinEQ Broadband Stereo_Effect	SpaceDelay
C1 gate Mono_Effect	LinEQ Lowband Mono_Effect	StealthLimiter
C1 gate Stereo_Effect	LinEQ Lowband Stereo_Effect	Strobe2
C4 Mono_Effect	LinMB Mono_Effect	Strum Session 2
C4 Stereo_Effect	LinMB Stereo_Effect	StudioRack Mono&#47;Stereo
Center Stereo_Effect	LoAir 5.0&#47;5.1_Effect	StudioRack Mono
ClassicClipper	LoAir 5.1_Effect	StudioRack Stereo
ClassicComp	LoAir Mono_Effect	Submarine Mono_Effect
ClassicEQ	LoAir Stereo_Effect	Submarine Stereo_Effect
ClassicLimiter	Lounge Lizard Session 4	SunsetSound
CSR!Hall	MasterMatch	SuperTap 2-Taps Mono&#47;Stereo_Effect
CSR!Inverse	MaxxBass Mono_Effect	SuperTap 2-Taps Mono_Effect
CSR!Plate	MaxxBass Stereo_Effect	SuperTap 2-Taps Stereo_Effect
CSR!Room	MaxxVolume Mono_Effect	SuperTap 6-Taps Mono&#47;Stereo_Effect
Cypher2	MaxxVolume Stereo_Effect	SuperTap 6-Taps Mono_Effect
DeEsser Mono_Effect	MBandComp	SuperTap 6-Taps Stereo_Effect
DeEsser Stereo_Effect	MBandImage	Syntroik
DeEsser	MBandLim	T-RackS 5 Metering
Doppler Mono&#47;Stereo_Effect	MetaFilter Mono&#47;Stereo_Effect	T-RackS 5
Doppler Stereo_Effect	MetaFilter Mono_Effect	T-RackS CS Black 76
Doubler2 Mono&#47;Stereo_Effect	MetaFilter Stereo_Effect	T-RackS CS Brickwall Lim
Doubler2 Mono_Effect	MetaFlanger Mono&#47;Stereo_Effect	T-RackS CS British Channel
Doubler2 Stereo_Effect	MetaFlanger Mono_Effect	T-RackS CS Bus Comp
Doubler4 Mono&#47;Stereo_Effect	MetaFlanger Stereo_Effect	T-RackS CS Classic Clipper
Doubler4 Mono_Effect	MicR	T-RackS CS Classic Comp
Doubler4 Stereo_Effect	MondoMod Mono&#47;Stereo_Effect	T-RackS CS Classic EQ
Drawmer S73	MondoMod Mono_Effect	T-RackS CS Classic MBand Lim
DynaMu	MondoMod Stereo_Effect	T-RackS CS CSR Hall

Figure 7. Partial list of available plugins 2021

Every line here is a complex software module with its own parameters, quirks, strengths and weaknesses, each one with a learning curve, and time demands on the composer. Is this too much? Yes, obviously. Who really uses twelve types of reverberation?! On the other hand, having all of this at hand, every day, with no extra cost other than the yearly updates, gives the musician plenty of time and opportunity to learn. Most users learn much in order to give some sense to their investments. One should consider that there are more similarities between modules than it can seem at a first glance. Once you know, say, a reverb unit in depth, the others become rather familiar quickly, providing that you take some time to study them a bit. Is it not exactly the same with many musical aspects? Once you know, say, a scale or a mode in depth, the others are much easier to learn and explore.

### ***Two models and constructed proficiency***

In many previous work (1994; 2004; 2005; 2013), I pointed out that one can find trends and undercurrents that unify the various equipment and software despite their differences. They are more coherent and unified than they appear. For instance, we are greatly influenced by the expressive demands of a vocal tendency, a percussive tendency and the mixed field that their



interactions generate. We are also alert to the underlying algorithms, sonic paths and module structures and recognized quickly enough the main features of different modules.

Let's consider the case of a synthesizer. Because the resemblance of most of them to the spoken or singing voice operation and to important instrument archetypes, as experienced users we rather simply *feel*<sup>21</sup> how to create a pitch with a keyboard or such, adjust its volume with a pedal or a slider, change its timbre with some filter-like tool (even with the complex DX-7 fitted that vocal model<sup>22</sup>). I have shown (1994) that the vocal model is behind a great number of musical inventions: the electric guitar with its full range of effects, the Ondes Martenot, the Theremin, the electric organ and the synthesizers work similarly. On a piano-like or a percussion-type instrument, we understand right away that the various strikes on keys / pads / surface give, both, the pitches / sound complexes, the volumes and the timbres of individual sounds. On a delay system, it is usually simple to figure out that delay times, the volume of the echoes, the feedback or timbre qualities operate in such a way, despite the different graphics or even labels. In other words, professional musicians are well-prepared to find their own ways through such a dense *bric-à-brac*.

What to conclude from this? First, today's abundance is not as confusing as what may seem. Despite superficial or more important differences, a skilled musician can find the way, basing the learning process on underlying similarities. Second, now more than ever, the risk to be lazy is strong: insensitive button pushers and *preset* users are numerous. A basic acceptable sound quality is easily obtained and could become a trap for the unwary musician. But has this risk not always been present in music? When the organ appeared, choirmasters were worried that this novelty would bring a lowering of singing quality, and it may have happened within uncaring groups. But has vocal music become bad in general? Obviously not.

Researchers in media (Tiffon, 2011) have shown that new media do not completely replace old ones but add to them and change the hierarchies. Television has not killed cinema nor radio but those two became less culturally important. Now Internet tools have added their capacities, clearly diminishing television's domination, but TV (or cinema, or radio, or books...) is still present and active. Therefore, the key for an artistically satisfactory use of digital or analog musical tools is to remain demanding and active, to beware the lazy push-button attitude and keep pushing the developers and luthiers to do better. Generalised programming software allows one to become his own luthier.

## Current trends and interesting improvements

As examples of a proper demanding attitude in this digital musical plateau, what can still be done to improve the performance of electroacoustic music? Here a few interesting cases that go in those directions.

### *The Leap Motion (2021)*

This is a general USB infrared cam developed since 2008, optimised for the detection of the movements of the two hands, wrists and ten fingers with their several joints (Figure 8).

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<sup>21</sup> André Leroi-Gourhan talks much about such behavior in his famous books (1964-65). He talks about the "machinal", "by 'ote", the automatic but semi-conscious that is necessary to perform complex procedures such as driving a car.

<sup>22</sup> Once the user understands that the modulation index is akin to a filtering.



Figure 8. Detection of two hands by the *Leap Motion*

As a user, the most surprising feature of this rather cheap<sup>23</sup> tool is its sensitivity. The precision here is millimetric, rather than the centimetric precision of the Kineckt or webcams. This makes one realise how poor other gestural interfaces can be. This sensitivity changes everything: it's the precision of proper musical instruments (Cadoz, 1989). A properly setup of *Leap Motion* can sense and transmit to a general software very relevant and subtle motions of the fingers. But it's a non-touch instrument, like a Theremin. Despite the lack of tactile feedback, it gives haptic, aural and visual feedback to the user and strangely enough, this gives some illusion of physical contact, providing that the mapping of the fingers details is properly done to the right sonic features. As force-feedback joysticks or plain 3D joysticks already have shown that the accumulation of degrees of freedom is the key for a rich user experience and applicability to complex musical tasks.<sup>24</sup>

### ***Eowave Ribbon Mark 2 (2021)***<sup>25</sup>

*Eowave Ribbon Mark2* is both, an instrument (audio and control voltage (CV)), and a USB MIDI 12-bit controller, a gliding ribbon plus pressure and a sensitive copper touch plate (Figure 9).



Figure 9. *Eowave Ribbon Mark2*

As it can be seen, this tool is very reminiscent of the Martenot ribbon. This monophonic ribbon possesses three degrees of freedom: X position, pressure on the ribbon and pressure on the copper plate on the left side. This information is transmitted as MIDI pitch bend (twelve bits) with two other 7 bits controllers. Once again, the most surprising is its millimetric sensitivity.

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<sup>23</sup> It costs around 90€.

<sup>24</sup> I have shown during my talk a decently working polyphonic Theremin/Martenot: each finger controlling pitch, timbre and intensity independently.

<sup>25</sup> When available, it costed around 270€. The Covid crisis slowed down many of these small companies.

Prior to this generation of interfaces, we settled on poor gestural interfaces (wheels, sliders, pedals), beside the usually decent keyboards. I believe that the density of the underlying grid and the scaling of the gestures are quite good in this case. The resolution of twelve and seven bits appears quite good and I have had a great time with this interface which strongly reminding me of the old Moog ribbon and Buchla touchplates. With this ribbon, the key once more is a proper and musically interesting mapping of the transmitted values, but *Max/MSP* is very flexible for such tasks.

### ***MIDI Polyphonic Expression (MIDI.org 2018)***

A third very interesting case is an addition (2015-2018) to MIDI, just before MIDI 2.0 (2020), Figure 10:

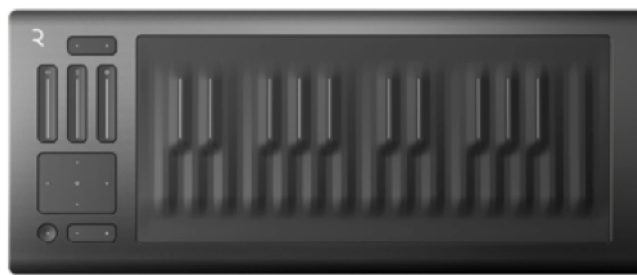


Figure 10. A Roli *Seaboard*

I acquired a Roli *Seaboard*<sup>26</sup> to do the first (and satisfactory) tests. With this addition of MIDI, each finger on the small keyboard becomes an independent device, each with its own volume, controls, aftertouch, pitchbend. The Roli makes use of five degrees of freedom, plus the notes, for each finger: note on velocity (“Strike”), note off velocity (“Lift”), pitch bend (“Glide”, X axis) polyphonic aftertouch (“Press”, Z axis), and polyphonic controller (“Slide”, Y axis). This is possible due to the silicone gel under the rubbery surface, sensing location, pressures and quantity/directions of motion. A typical mapping would be to control (on and off) the notes<sup>27</sup> with the “keys” and velocities, the brightness along the Y axis, the vibrato depths with the polyphonic aftertouch (Z axis) and to change the pitches through a lateral (X axis) motion akin to a Martenot keyboard. Thus, it is possible to program a good simulation of the famous Yamaha CS-80, Martenot or totally different behaviour’s. I find this combination of 5D and proper programming as the beginning of an important musical trend for keyboard music and electroacoustic interpretation.<sup>28</sup> For instance, instead of controlling pitch variations with an auxiliary command, the pitch wheel thus immobilising the left-hand, one has the possibility to subtly modify the pitches with a basic, normal and very ergonomic keyboard gesture.

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<sup>26</sup> When available, the smaller one costed around 350€. They remind me of a late proposal made by Robert Moog (1992) in an ICMC conference.

<sup>27</sup> This is a rarely used possibility of the first MIDI protocol, quite effective to control transitories through various ways of lifting the fingers.

<sup>28</sup> Soon, Expressive E (2021) will market for 1800€ its “Osmose” keyboard similar in many ways but with 7 degrees of freedom: “Tap” (on velocity), “Press” (pressure on the key), Press & Tap, “Pitch” (lateral movement), poly aftertouch (bottom of the keybed), “Shake” (vertical), “Strum” (different level of pressure), pressure difference. This is apparently derived from the famous Haken continuum keyboard (2021).

## *Expressive E: Touché*<sup>29</sup>

The *Expressive E Touché* is a most expressive USB MIDI/CV device. It comes with four degrees of freedom “lever” (Figure 11).



Figure 11. *Expressive E Touché*, with two MIDI keyboards

This tool represents a kind of multiplication of the famous Martenot *touche d'expression*, the pressures on the wood surface are detected independently in four directions: up, down, left and right. Internally, the gesture analyses are done in twelve bits (Pottier, 2021), but they are transmitted with plain USB MIDI. This tool has both great looks and, most important, great feel, even with real wood under the fingers, giving a rich tactile feedback to the user, along with the very well calibrated resistance of the underlying springs. It comes with a great bank of sound/gesture presets (UVI/Falcon), even if such a big bank of sounds can be overwhelming.

Similarly to the previous examples, the most surprising facet of this tool is its sensitivity, even in plain MIDI. Typically, this is used to control volume and various aspects of timbre through well-controlled pressures.<sup>30</sup> In the new Arturia *Polybrute* keyboard (2021), a *Touché* can be used to do crossfades between patches, modulation several parameters at the same time. This is easily implemented in a *Max* model, if desired.

With all those tools, I am able to build some nice instruments: a polyphonic Theremin, a complete Martenot combining a keyboard, the *Ribbon* and the *Touché*, a CS-80 emulator and a rather full and very expressive musical environment, allowing subtractive synthesis, FM, physical modeling, with either a plain keyboard, the *Ribbon*, the *Seaboard*, the *Leap Motion* or a MIDified guitar as controllers, not forgetting various pedals and feet controllers, and a microphone to sing into. On my website (2021), the reader can listen to some examples, to make her or his own judgment of the attained musical quality.

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<sup>29</sup> The full version costs around 400€.

<sup>30</sup> In my talk, I mapped the “up” direction to the volume of a triangle wave, the “down” direction to a mixing of a square wave, the “left” to a brightness filter and the “right” to a delay send. This gave much life and sensitivity to a simple synthesizer patch.

## Conclusion: the ecology of a necessary bric-à-brac

In memoriam R. Murray Schaeffer (1933-2021)

After showing in this paper that the *bric-à-brac* is a constitutive part of the electroacoustic music composition, the next step of this phase of my research will be to consider the studio or stage more seriously as ecosystems (digital and analog...). This ecosystem involves people, devices, networks, interactions, complementarities and every part of this ecosystem is critical: the change one of them would impact on the system. It is, however, too early to share the results of this research.

By connecting the idea of the electroacoustic studio ecosystem to my previous research, I aim to let emerge an important trait: due to the relative simplicity of every single element, a true musical richness comes of the whole by complementarities. A single tabla sound, for instance, is of little musical impact but the whole range of sounds, gestures and rhythms of this pair of drums is wonderful. Similarly, a small sound on a digital set-up may be non-significant but a range of them can be if we work hard enough.

From this perspective, the idea that this article put forward is that these trends –the analog plateau with its interactive possibilities and some technical problems, and the digital plateau and its sonic possibilities holding limited interactions– can be bridged by today’s current interactive and most sensitive tools. Now the difficult part: it is up to us to make proper music!

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# Composer-Computer-Interpreter. A three-way collaborative process to the creation of two new works for multipercussion

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*Dimitris Andrikopoulos<sup>1</sup> and Nuno Aroso<sup>1</sup>*

**Abstract.** Last decades we see a redefinition in the way of interaction between the performer and the composer, an interaction that led to the discovery of new paths of creative collaboration between parts. This article is a study of this relationship as presented in the works “Solo I” for multipercussion and “Solo for Two”, a duo for two multipercussion sets by Dimitris Andrikopoulos. We aim to address, firstly, the collaborative process between the composer and the interpreters from the early stages of the creation of the works up to the moment of performance and recording of the pieces. We address how this process and collaborative attitude influenced basic parameters of the composition, parameters as the sonic identities of the works and the research into instrumental sets that are moving away from the conventional/established instrumental setups, as well as, how it influenced, on the compositional level, the transformation of the abstract created material to a viable technically musical text in the final form that the pieces were presented. Further, we address issues related to the generation of compositional material through algorithmic processes, material that was used in the creation of the pieces, itself a type of collaboration between the composer and the computer inside a Computer Assisted Composition (CAC) environment. In the case of both above works the PWGL application (PatchWork Graphic Language) was used.

**Keywords.** Collaborative musical activities; Multipercussion; Research on unconventional instrumental setups; CAC.

## Composer versus Interpreter. A case of chickens and eggs.

The word symbiosis is the best word to describe the relationship between composers and interpreters throughout the history of western music. Even if this is a clear fact, this relationship took different forms in the course of time. In the early renaissance period performers were expected to complete the scores of the composers by even adding accidentals and place the words under the notes in vocal music demonstrating the highly collaborative symbiotic system in order to have the works performed.

Slowly, with the development of a more adequate system of notation and the necessity of the composers to indicate more clearly their musical thought, we have a decrease in this highly collaborative relationship, even if much of the baroque period music still includes a high level of improvisation inside the basic skeleton of the notated musical text, arriving finally to the 19<sup>th</sup> century when we have a drastic change of the paradigm.

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Going into the 19<sup>th</sup> century, the new public attributes to the composer/performer figure almost supernatural abilities, Paganini and Liszt are great examples of this. Coming out of many centuries of tradition where the composer has always been deeply involved in the performance of his works even as a player, we are moving to a new era, where this image slowly fades away. A new distinctive role between performer and interpreter is formed, resulting in the participative role of the composer to the final performance to be given up. Adding to that, the individualistic new approach to musical creation by the composers at the time, led to a situation where the composer is considered a unique artist-creator, a “hero” to be venerated by the society, an artist which his works are slowly being personified, and in the same way as the composer himself, are iconoclastically worshiped by the audiences and have to be performed “as written in the score”.

With the more frequent performance of dead composers in the late 19<sup>th</sup> and early 20<sup>th</sup> century, the gap of the historically close collaboration between composer and interpreter has only been amplified. Inside this schism, and at the same time as result of this situation, one thing became clearer; the necessity of composers to have a bigger control on the interpretation and performance of their music. This thing became possible through the only tool that a composer possesses: a more detailed and precise notation of the musical text. From the Baroque style scores of the baroque era we are now in the time when a score through the detailed notation of dynamics, articulation, tempo variation, performance indications and even the suggestions over the emotional impact that music had to achieve in a given point, diminish even more the collaborative relationship between interpreter and composer and reduce the interpreter into a mere reproductive medium of the composers ideal interpretation of his text. A characteristic example of this attitude, we can note on a response by Gustav Leonhardt in an interview. Leonhardt responded: “No, I have nothing to say, I am only a player.” “As opposed to?” asked the interviewer, “to a real musician, which is a composer” the final answer (Sherman, 1997: 203–204).

Nevertheless, taken all this mythology apart, interpreters frequently throughout the history of western music rearranged the written scores. Even today we see, especially in vocal and operatic repertoire, a big amount of improvisation by the performers and many times even a drastic reinterpretation of the score, all excusable under a mighty word presented: *tradition!* Anyone who played in an orchestra has experienced the sometimes almost barbaric intervention of conductors, by introducing cuts and changing the duration of movements in order to please their concert duration necessities, or other times, by ‘improving’ the orchestration of the score, or even changing the musical text itself. As we move further into the 21<sup>st</sup> century, happily, these attitudes become more and more stories from the past.

The next step in this relationship we can trace after the second world war. The power behind the radical change taking place after the war was the necessity of the composers to cut the relationship between the new music and the music of the past. It was a time for a music that aimed to express a new society with new ideals and being free of the social and artistic decadence, in their view, of the pre-war society. Taking in account as well the fast development and influence of electronic music and the new aesthetics introduced by the new studios that were appearing all over Europe and America at the time, we have a profound reevaluation of what musical sound is. All this influence, combined with the inquisitive minds of young composers, gave a start to an intensive research that led to a reevaluation of what instrumental technique is, how sound is produced by the instruments, the extension of sound resources beyond the spectrum of the until then accepted ‘musical’ sound and the inclusion of noise into the possible sound resources used by the composers. Inevitably, all the above led to the change of paradigm of interpretation and performance itself (if Futurist composers were still alive, they would have been sitting in a corner laughing).



In this new environment, interpreters take a new role into the creative process. From faithful re-creators of the original idea, they become important elements in helping the composer to understand the new sound possibilities, to understand the new mechanics on how all these new sound palettes can be produced effectively, and actively contribute to the extension of the technical resources presented to the composer.

To this development, there is no better example than the research and collaboration between performers and composers when making music for percussion instruments. It is very often said that the 20<sup>th</sup> century has been the century of percussion development. Composers took advantage, as well as, an active role in this. From an emphatic role in the orchestra scores of the nineteenth century, the percussion family emancipated to an individual - always in development group - that gave an immense space to composers in order to challenge their limits of imagination and their creativity.

### **The big extension of the research on sound resources in percussion. A never-ending story.**

Percussion has been part of human expression and communication since the beginning of time. Alongside with the voice, percussion is one of the first forms of musical enunciation and still is today a fundamental part of the popular musical manifestations from Africa to Asia, from the Americas to Europe. Despite the percussion omnipresence in the globe, in its many forms and cultural insertions, inside the scope of classical music percussion was relegated to a secondary plan.

The pioneering, and from several points of view, revolutionary role of percussion family in the development of Western music took place in the 20<sup>th</sup> century starting in the decade of the 30s with the presentation of *Ionisation* by Edgar Varèse. *Ionisation* was the first work written for percussion ensemble. Composers like John Cage, Edgar Varèse, Henry Cowell following the visionary example of the futuristic movement altered the role of this instrumental family, from its traditional function inside the orchestra to a new and revolutionary character, as a sound extender, capable of accompanying the ever-growing needs of composers' imagination and virtuosity.

A varied range of traditional non-western instruments appears in the percussion section which, if on the one hand, respond to the ethnic-instrumental exoticism that composers of the time sought, on the other, compel percussion players to a mastery of wide performance techniques. The percussionist of the second half of the 20<sup>th</sup> century became a versatile musician. Composers delegate to the interpreter extended and increasingly complex functions that include, additionally to the mastery of the multiple instruments of the percussion family –skins, keyboards– the mastery over other unconventional sound sources. The development of percussion was effulgent in subsequent musical *revolutions* up to the present day. Music for percussion has become a flag of musical innovation.

The most notable characteristic of contemporary percussion is the infinity of its resources that allows both composers and interpreters to build their own musical entities. This vast amount of new resources and techniques create even more the necessity of a bigger interaction and collaboration between the composer and the interpreter from the early stages of musical creation. When writing for new instruments or instruments that are out of the sphere of the 'conventional resources', new challenges arise to both composers and interpreters.

Except from the conventional instrumentarium, there is significant research on home-made, junkyard, unconventional instruments that require even more a completely different approach both on composition and interpretation as well as on issues of notation, intensifying even more the necessity for a closer collaboration between the composer and the interpreter.

The works by Dimitris Andrikopoulos *Solo I* and *Solo for Two* are two examples in this line, mainly in the research and the extension of new timbre resources. In both works, the sound sources/instruments have to be chosen by the interpreter according to some general instructions by the composer.

### ***Solo I* and *Solo for Two*. A search for new sound resources.**

*Solo I* and *Solo for Two* are the first two works written for percussion by the composer, Dimitris Andrikopoulos. Both pieces are based on the idea of human language and speech. They express a research on the almost chaotic patterns created by a multitude of people talking at the same time, where the various rhythmic lines (in the instrumental musical discourse) coexist and interact.

Nuno Aroso's work as an interpreter is mainly focused on an extended research to non-regular instrumental settings, settings that go out of the canon of traditional percussion, as for example home-made instruments.

Both pieces carry this influence. From the early stages of the composition process, before even start dealing with the musical text itself, there has been a series of conversations between composer and interpreter over the sonic character of the works and the interest of both into exploring alternative instruments and timbres that, in the first place, could create an individual sonic signature in every piece and, secondly as a result of the first, create challenges to the composition process as well as to the final interpretation of the pieces. It is important here to say that both works are part of a major set of works for percussion, in progress, that looks into the above problematic.

In this sense, *Solo for Two* is more adventurous than *Solo I*. *Solo I*, being the first percussion work written by the composer, follows a more conservative approach to both questions. The compositional challenges are more present on how the compositional resources used in the piece are combined through the use of the different construction materials of the instruments (wood, skin, metal); in a way, a more 'contrapuntal' approach between timbres.

For the creation of the rhythmic material used in the creative process of *Solo I* and *Solo for Two*, the Patchwork Graphic Language (PWGL) application was used. PWGL is a Common Lisp application and was developed in 2002 in the Sibelius Academy in Helsinki by a research team consisting of Mikael Laurson, Mika Kuuskankare, Vesa Norilo (2009). It is a visual language combining the strong points of its predecessor Patchwork, developed in IRCAM in the decade of 1980, but with a modern, easier, more flexible and stronger user's interface. For the case of *Solo I* and *Solo for Two*, the Gestural Rhythms (GRhythms) library, created by Magnus Lindberg, was used as a central tool for the manipulation of the basic rhythmic material.



orchestral bass drum, creating a 5 set of natural skin membrane instruments, 5 woodblocks and 5 cymbals where the lower 3 are sustained cymbals (low-middle and high) and the high 2 must be Chinese cymbals. The more interesting part of this instrumentation was that the large bass drum has to be taken out of its support mechanism, be placed on the floor and always to be played by the use of a foot pedal.

After the first performance of the work it was clear that the marimba was sounding as a foreign object to the sonic image of the piece, mainly due to the reason marimba being the only pitched instrument of the set in combination with the limited pitches used (only the first, lowest octave of the instrument). It was clear that a different approach had to be followed. The nature of the marimba itself, a set of wooden plates of different sizes, gave the solution to this problem.

As so, 5 pine wood plates of different lengths were created, resulting in 5 different non-pitched sounds. The sound of the instruments has a distant resemblance to the traditional wooden Greek instrument, Simantron, an approximately 3 meters long wooden plate and its smaller variations, used in many orthodox Greek monasteries to announce the important parts of the day.

The marimba part was rewritten in order to use these newly created homemade instruments. Again, in this part, the collaboration between composer and interpreter was an essential factor for the solution of this challenge, mainly for the choice of the material and the size of the wooden plates used in the piece. The introduction of this new element intensified as well the sonic idiosyncrasy of *Solo I* and finally, in a practical sense, the absence of a marimba added to the flexibility and mobility, for future performances, of the work.



Figure 2. *Solo I* set up.

Another important factor in this collaborative process has been the input of the performer to the creation of the final score of the work. Many times, the compositionally correct choices for the notation of a work made by the composer are not the most efficient neither the most intelligible ones for the practical realization of the piece by the interpreter.

In the case of *Solo I*, being constructed out of different layers of algorithmically generated material, the first choice was to create a score that could clearly demonstrate this process. This resulted in a 4-staff score demonstrating clearly its multilayered compositional structure, but at the same time, the final result was moving away from the commonly used notation for a multi-percussion setup. Apart from the high level of difficulty of the piece, this type of notation

created extra challenges to the interpreter. After a lot of conversation between the composer and the interpreter a new score was created, adapting a different approach to the notation of the work and coming much closer to the visual expectations of the performer than the, theoretically more correct, composers' score.



Figure 3. First page of *Solo I*. First and second version.

*Solo for Two*, the second work in this series, has been a more adventurous work in terms of sonic research and the use of non-standard percussion instruments. From the early stages of the creation of the work there has been a close conversation between the composer and the Magnet Duo – Nuno Aroso and Mario Teixeira. The challenge in this case was to create a piece that had to go out of the standard instrumentarium of percussion instruments, through the use of different kinds of homemade instruments in order to create an even more individual sonic character.

For *Solo for Two* only metal instruments can be used. Even if there is in the scores a suggested instrumentation for the piece, the interpreters are free to choose a completely different setup with only two constraints applied. Firstly, they must combine for every layer metal instruments with a different sonic character, instruments with shorter and longer decay and a broad dynamic spectrum (*ppp* to *fff*). Secondly, the lowest line of the second percussionist, a larger, longer decay instrument has to be used and to be controlled by a foot pedal, similarly to the case of *Solo I*.



Figure 4. Different setup examples for *Solo for Two*.

Up to the day, three different groups have performed *Solo for Two* and three completely different setups have been used by the performers. Metal pipes, kitchen pans, aluminum bars, hoes, anvils, different shapes and sizes of metal pieces in combination with different sizes of petrol barrels

played with a foot pedal, have been some of the instruments used. Even if the rhythmic structure of the piece always remains the same, every performance of the work opened a completely different path to new sound worlds.

It is a fact that in both above cases, *Solo I* and *Solo for Two*, the research interests of the interpreters have been a crucial and influential factor to the work of the composer. It is extremely important to say that the creative space created by the performers, this opening they presented into new sound colours and their will for experimentation with different materials and homemade instruments provided a great opportunity for the composer to follow ways that went away from the traditional writing for percussion, as well as to extend in some cases the technical possibilities of the instruments used.

In order to compensate for some practical problems presented during the rehearsal period, problems resulting out of the sonic constraints of the homemade instruments, solutions had to be devised. A simple example is the foot pedal used in *Solo for Two*. In the case of the use of a large petrol barrel, a normal pedal beater because it comes closer to a hard head beater, produced much more high frequencies, erasing the lower and more resonant sound of the petrol barrel. In this case different solutions like adding a felt cloth cover to the pedal or in the latest presentation of the piece, “dressing” the pedal with a wool thread and changing its character from a hard to a soft beater was used in order to succeed the timbre that the composer asked for this part.

### **The Third Person: The Composer-Computer collaboration**

For the creation of *Solo I* and *Solo for Two*, as mentioned before, the PWGL application has been used.

From early in the decade of the 1950’s composers used computers as part of the creation process in order to solve compositional problems and make complex calculations, giving birth to what is known later as Computer Assisted Composition (CAC). An area of CAC that gained a predominant space into composition practice is algorithmic composition. According to Karlheinz Essl, an Austrian composer that dedicated much of his work to algorithmic composition, an algorithm is a “a predetermined set of instructions for solving a specific problem in a limited number of steps.” (2007: 107).

Even if the term algorithmic composition implies a use of computers, the idea of solving a specific –musical in our case– problem is much older than the discovery and the use of computers. Any simple set of rules *constraints* in a more binary language, such as medieval counterpoint, Bach’s instructions in his *Musical Offering* or in his *Goldberg Canons*, the musical dice game of Mozart, or the use of the Golden Rule as the constant for formal segmentation in works by Debussy or Bartok, few of the many examples existing, are nothing more than individual algorithms that when put together produce the solutions to the musical questions asked by the composers. Even our simple understanding of the music of a period, what we call musical style, is a result of the rules that govern this particular style.

The big question in the case of the two percussion works is if and how we can consider the computer as a collaborator, a third party element in the realization of the composition process. If the answer is yes, until what point does this collaboration influences the creative process? In order to respond to this question it is necessary to mention the way that the computer interfered in the creative process.

The use of a CAC permits the creation of a massive number of solution variants on a previously formulated musical problem. By changing and experimenting different parameters in the

different formalized elements of a piece, in the case of *Solo I* for example, the exponent values which the rhythmic cells have to be elevated in the rhythm-contrast process, different solutions have been presented. As a result, this firstly influenced the decision-making process of the composer. This real time multiple-solution process provides a variety of solutions that allow, metaphorically, to *tune* a musical idea, a musical concept. At the same time, if the results of the processes are not being up to the expectations, this demonstrates that there are flaws in the original concept. The system's results are always dependable on the questions posed and the variation of the parameters given for the calculations. The computer's *mind*, in a way functions as a mirror of our thought, an image that many times when composers are busy with the technical parts of the creative process, tend to forget. This demonstration of the flaws permits a fast reevaluation of the original concept in order to bring it up to the level that it can produce the expected results, a process much similar to the way that scientific research works.

Another important contribution is that the results produced out of these processes permit what is generally called a Class Composition. The production of a bigger amount of acceptable results permits a larger amount of variations of the particular piece. In this sense there is not only one way that can be followed for the realization of the work but many, there is not only one work but many variations of a work, variations that can provide different narratives and dramaturgical ways to be followed. As in many cases the focus for a contemporary composer moves away from the "how" to the "what", to the adequate filtering of the results presented. And this is not something new.

Frank Dietrich mentions that the computer enhances the artist's ability to set up "thought experiments" (1987: 315–325). In opposition to some traditional idea that somehow the use of CAC substitutes the composer's ability to imagine, think or choose, CAC functions as an enhancement of the composers' creative mind. It enriches the creative processes by creating the space for a deeper insight, a deeper understanding of the processes used during the composition of a work and on how these processes function practically. Many times, are assigned to the computer tasks that could consume a significant time for a human to realize, permitting in this way the composer to focus into more important issues as the narrative and the dramaturgy of a work. Is this a collaborative process? As in the case with the collaboration with the interpreter, yes it is, to the level that the composer permits these external parameters to influence and constrain his creative work.

## Conclusions

This study tried to present the different processes and ways of collaboration used during the creation of two works for percussion by Dimitris Andrikopoulos, *Solo I* and *Solo for Two*.

All the processes presented arouse various questions related to the constantly changing relationship between composer and performer as well as the new founded relationship between the composer and his recently hired assistant, the computer.

It is more than normal to ask, are we in front of a new reality for composers? Are we in the early phases of a new relation between composers and interpreters? In order to respond this we have to ask ourselves, what is the difference to the past? And when we speak about the past, in this case we speak about the post nineteenth century solitary-genius tradition of western music that has been the predominant one up to our days.

One direct answer comes out of the percussion paradigm and the research on new timbre recourses that has been the focus of this study. The more intense this research becomes, the further from the historically established practices of interpretation we move, the more we look

on the extension of the technical and interpretative recourses and the greater the level of specification on the way how the different sound elements of a work can be produced, the more active will be the participation of the interpreter in order to translate effectively and clearly to the score all this new information. The interpreter indirectly becomes as well one of the basic resources for the realization of a piece.

From the part of the interpreter, the more he influences the compositional practice the more we can speak for an individualization of the work created. Many times, this is part of the work itself. In the case of *Solo for Two* the collaboration of the interpreters to the final realization of the work is indispensable. Due to the partially indeterministic character of the orchestration of the piece, it is up to the interpreters to give the final steps to the realization of the work. In a sense, the score is not finished when it is delivered to the players. There is a continuous development of the work when it is related to other interpreters. An ‘open-closed’ work. Metaphorically an asynchronous continuous collaboration between the composer, the work and its future performers.

Another interesting outcome from the collaboration of interpreter/composer, from the interpreter’s point of view, is that he conquers an “ownership” of the artistic material as never before done in other creative processes guided by less shared principles. As he is part of the creation, by making decisions like the ones regarding instrumentation, for example, an idiosyncratic version of the work will be presented every time a new musician plays.

Michael Schrage in his 1990 book *The New Technologies of Collaboration* defines collaboration as “a process of shared creation, in which two or more individuals with complementary skills interact to create a shared understanding that neither had previously possessed or could have come to on their own”. In many ways, the collaborative process between Composer-Computer-Interpreter falls inside this broad definition. A relationship that, probably, with the rapid development of technology and the creation and research of new musical resources is only going to be intensified.

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# Collaboration and distance: the challenges on the collective creation of *Nácar* (2020), an audiovisual improvisational piece for cello and electronics.

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**Abstract.** *Nácar*, an audiovisual improvisational piece for cello and electronics, is the result of an intense month of online collaboration between five artists, the authors of this paper. Aiming to create a collaborative piece in which musical technologies were present, the group – formed by five musicians, tried to blur the boundaries between sound and image through the digital expansion of the cello, which triggered both sound and image processing. In this paper, we are going to report the collaborative creative process and the problems and solutions we found, relying on Gilbert Simondon's concept of invention - to which we consider it relevant to add Helmut Lachenmann's maxim "composing is building an instrument". What instrument have we invented and built and which instruments can be built in this new scenario we are living in, where technology is a central point of remote musical creation

**Keywords.** Collaborative creation; Live electronics; Visual music; Extended techniques.

## Introduction

In the context of social isolation imposed by the Coronavirus pandemic, the five authors of this paper were brought together at the *musitec2* (2<sup>nd</sup> Music and Technology Conference), an event that happened online between November and December of 2020. Each one of us was quarantined in a different place in Brazil, and we formed a work group to present an artistic project at the end of the conference. Although the group was formed for this specific project, we have kept in touch and have continued to collaborate and research together ever since. The group's configuration is somewhat heterogeneous: four composers (in *Nácar*, three of them worked with digital sound processing, and one of them with digital image processing) and a performer (cellist and painter). However, from the first meeting, we decided that our compositional process should be fully collaborative and that everyone could make decisions and actively contribute to every step of the creation. The composition and the debut of the piece happened remotely, and we organized the collaborative work through frequent communication made synchronously (through videoconference software and instant messaging applications)

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and asynchronously (through cloud storage). The interaction through instant messaging applications created a sense of continuity to the process, a feeling of immersion - intensified by the fact that we were attending the *musitec2* classes and activities that happened daily, meeting frequently in online meetings, and feeding materials and ideas related to the piece into cloud storage.

In the next section, we will describe the compositional process and the means we found to create collaboratively and remotely. In parallel, we will make a brief theoretical exposition on *the inventive cycle of the images* proposed by philosopher Gilbert Simondon, pointing out convergences between Simondon's thought and our inventive process (Simondon, [1965-66] 2008). Last, we propose a discussion on how a composition can be regarded as the invention - according to Simondon's conception of the term - of an artistic object. In the case of *Nácar*, the inventive process was crossed by several extra-musical factors (the distance, the technological mediation and its technical limitations, the interaction between five artists, the deadline for the debut of the piece, and so forth) that, as we will try to demonstrate later, became elements that determined the final result of the piece.

## Simondon's inventive cycle of images

At the first group meeting we presented our research and individual interests to each other and evoked mental, poetic, sonic, visual and tactile images that would serve as a starting point for the creative process. The poetic figures that emerged from that first conversation were those of a shell and jets, bubbles and streams of water entering, leaving, and running through its cavities. We associated those figures with others, such as a bubbling cello; the movement of the creatures that once inhabited this shell; the propagation of the sound produced from within the shell heard from outside or vice-versa and how it would resonate in the circular walls and hard depressions formed by nacre, a material produced by molluscs that it ceaselessly deposits onto the inner surface of its shell.

After that meeting, Airoidi made small watercolour paintings and recorded solo improvisations on the cello, both materials that she produces as practical experimentation in her research and which methods were similarly applied to this process. Airoidi's research is centred on the interface between sound images and visual images and the potentials of having visual images as mediators of sound manipulation at different moments of music-making (thinking, composing, writing, rewriting, performing and teaching). The paintings were elaborated as scores that accompany the improvisations. Airoidi bases herself on the idea that the score is one of the images that permeate musical activity and can be considered as a mere trigger of movement (*image a praesenti*). Drawings and graphic scores can induce a deviant path, as they present an interruption to the flow of transmission and restitution of movement to which the performer is used to when they perceive the score (*image a posteriori*). The graphic score can be a purposeful obstacle that, to be circumvented, requires the body to invent a new movement through which the flow - in this case, making sounds - can be restored.

The conception of invention as an attempt to retake an interrupted flow is presented by philosopher Gilbert Simondon. In *Imagination et Invention*, Simondon discusses the dynamic nature of the image, which manifests itself in a cycle whose last phase is the invention ([1965-66] 2008). Simondon dismantles the dichotomy between the material image and the mental image by considering that, although the term image is polysemic, the many meanings attributed to it do not denote independent realities, but rather phases of the same cycle. It is not a linear or evolutionary cycle, but a weave in which "The passage from one phase to another obeys a transductive path, that is, there are previous structures that work as platforms or conditions for

subsequent transformations” (Kastrup, 2012, p. 71). Simondon summarizes the cycle into four phases, namely: 1. image *a priori* (or motor image); 2. image *a praesenti* (or the perception of the image and its intra-perceptive manifestation); 3. image *a posteriori* (or affective-emotional image) and 4. invention.

In synthesis, the first phase of the cycle consists of the motricity that precedes the sensoriality, that is, the anticipation of the object or “a bundle of motor tendencies, long-term anticipation of the experience of the object” (Simondon, [1965-66] 2008: 3)<sup>4</sup>. In the second phase, Simondon traces the relation between image and perception, and states that it is not our perceptual capacity that explains the existence of images, but the opposite: we do not perceive images, but we perceive through images. At this point, Simondon discusses the intra-perceptual image, whose differential aspect is relevant to this text. In differential perception, it is the index of difference between what is already known about the object from past experiences and what is new in its present experience that becomes the point of attention of the perceptual system - that is, only the new possibilities of action and movement induced by that object, the non correspondences between the image and the incident data. When we think of the score (conventional or graphic) as an image, we can consider that the symbols it contains are triggers for movement, they induce specific actions that we learn to differentiate and execute with our voice, body or by manipulating an instrument. The graphic score contains unfamiliar symbols and elements that become the point of attention to our system and induce new ways for the cycle to be resolved. The third phase encompasses everything we understand as mental images (post-images, memory-images, eidetic images and symbol-images), subsequent experiences of perceived images that are impregnated in our mind according to the strength of the affective experience carried by it. These images, when consolidated as remembrances, become a model to which subsequent perceptions of the same object may present deviations (but not completely reconfigure it) and give sequence to the transductive process that grounds the invention. Finally, there is the last phase of the cycle: the invention.

Simondon states that “[t]he process of invention is most perfectly formalized when it produces a separable object or a work that is independent from the subject (*sujet*), transmissible, that can be shared constituting the medium for a relationship of cumulative participation” ([1965-66] 2008: 163)<sup>5</sup>. Essentially, Simondon understands the invention as a process of resolving a problem, the problem being defined as a situation that cuts off or interrupts the action. Well, if we are surrounded by images that induce us to act, we are constantly surrounded by flows of movement that pass through our and other bodies. Frequently, these flows are interrupted and our possibility of action is cut (such as when we come across a score that does not contain any known symbol; the pandemic that prevents us from making live music; the internet connection that is not fast enough in transmitting the sound from one place to another without latency; the changes that the sound undergoes when being transmitted, the suppression of performance gesture, etc.). The invention happens in the deviation, in the resumption of the flow. It is always modulated by the images of the other phases of the cycle, which involves the motor-images of the present, the memory-images of the past, and the anticipatory-images of the future. Thus, we can define the invention as an agency of images, and we would like to make a small parenthesis: this perspective can be very pertinent when dealing with invention in the arts and, especially, collaborative creation. To think of the composition of a piece as a process that happens through the agency of several images - which, in the case of *Nácar*, involves five different creators -

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<sup>4</sup> “un faisceau de tendances motrices, anticipation à long terme de l'expérience de l'objet” (Simondon, 2008: 3, author's translation)

<sup>5</sup> “Le processus d'invention se formalise le plus parfaitement quand il produit un objet détachable ou une oeuvre indépendante du sujet, transmissible, pouvant être mise en commun, constituant le support d'une relation de participation cumulative.” (Simondon, 2008: 163, , author's translation)

allows us to distance ourselves from a possible conflict that could involve the division of creation (which we are so used to attribute to the subjective or the individual) to think of it as a chain of events, a complex weave built through a plurality of actions. According to Simondon, in the process of collective invention, “the group becomes an organism in that each member modulates the rest” (Simondon, 2013: 206).

A significant part of Simondon's reflection on the invention is focused on technical objects, but in *Imagination et Invention* the author proceeds to also examine the work of art as an invention and highlights “the importance of art as a system of production of compatibilities and amplification of modes of appearance of reality” (Kastrup, 2012: 69). In other words, Simondon considers relevant how art creates bridges between distinct languages, being the locus for the invention of ways to articulate forces from diverse origins - such as the modes of compatibility between video and sound in cinema, the assimilation of drawing to literature since the spread of the printed text or the combination of sculpture, painting and gardening in the architecture of Renaissance Italy. In *Autoanalysis of The Creative Processes of Nacar* (2020) and *Vólpora* (2021), we pointed out that “in remote creation, the visual space, usually filled by the concert hall and by musicians and their gestures, became empty, thus allowing it to be occupied by other images that would contribute to the communication of the intended sound images” (Quinamo et al., 2021). From this point, we can consider *Nacar* as an artistic work that articulates different languages precisely at a moment that requires the invention of new ways of making art.

## The creative process

Although in her current research Airoidi purposely manipulates the images contained in music-making as a way to alter the sound result, *Nacar*'s composition process was crossed by several other interruptions for which we had to invent solutions that would allow us to restore the creative flow - which resulted, finally, in the invention of a machine that generates sound-images and visual-images. For this process, the paintings she sent were made with the poetic figures that we brought up in the first meeting in mind, and, after their production, she recorded the improvisations.

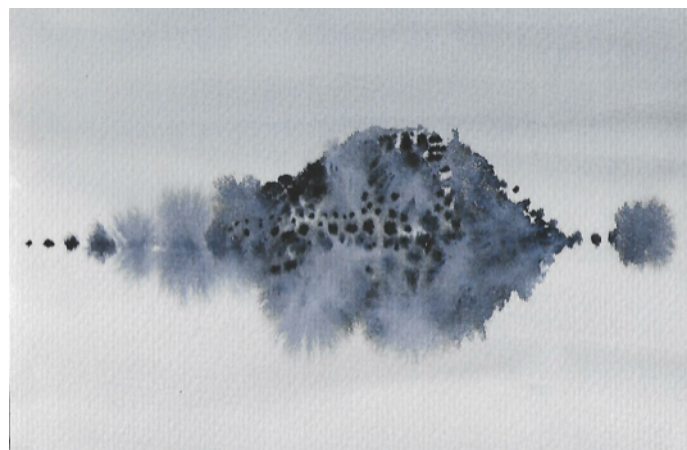


Figure 1. Example of one of Airoidi's paintings used in the *Nacar* video

With the challenges of working remotely as a group in mind, Lucia Esteves, Lucas Quinamo and Lucas Torrez wrote short musical experiments using Max/MSP. Based on the paintings and improvisations Airoidi had sent, they designed a patch to produce electronic sounds interacting

with the cello in real-time. In parallel, Felipe Martins developed computational processes that integrated sound and visuals. For this, the audio was analysed in real-time and the data was sent to Processing (visual programming environment) to activate, boost and modulate generative watercolours.

### *Process divergences, elaborations*

During the initial phase of collaboration, some playing indications and musical ideas were given to Airoidi, and she sent recorded improvisations to the group in return. Such recordings were then used for the preparation of the initial patches-experiments of each composer. Meanwhile Lucas Quinamo proposed a question regarding his approach of the image elaborated by the group: “How would a cello sound, if it were played underwater, inside a resonating seashell?”. The sound image he conceived was an ever-changing texture, with subtle sound gestures emerging and submerging from it, just like bubbles coming out of a shell and moving towards the surface.

With these sound images in mind, Quinamo asked Airoidi to play and record some improvisations based on short sketches he had written (Figure 2 and 3). The recordings were then used to experiment with some ideas inside Max/MSP, which resulted in two devices connected in series. The first presents five lines of delays with independent resonant filters controlled by a flatness audio descriptor, which analyses the sound coming from the cello; each filter’s output was set to move differently in the stereo field controlled by low-frequency oscillators. This produced oscillating sound gestures that, although coming from the cello, sounded a little (but not completely) detached from it due to the heavy sound processing. For Quinamo, those sounds intended to depict the streams of bubbles.

The second device presents a resonator created by 88 different tuned *Karplus-Strong*<sup>6</sup> synthesizers, which intends to mimic the resonance inside a piano case. It created a kind of resonator-reverb, which Quinamo intended to evoke the image of a cello being played inside of a seashell, with its sound reverberating inside the shell’s cavities.

The dry cello sound is then mixed with the electronics in the end. The sound result is an oscillating texture that arises from within the instrument, but exceeds it and stands out from the instrumental sound. The cello gestures explored in this patch were initially the pizzicati (Figure 2 and 3) as well as the beats resulting from two near notes played with the bow in double stops (Figure 2).

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<sup>6</sup> The Karplus-Strong synthesis method is a sound synthesis algorithm created by Kevin Karplus and Alex Strong which sounds “remarkably like the decay of a plucked string” (1983, p. 44).

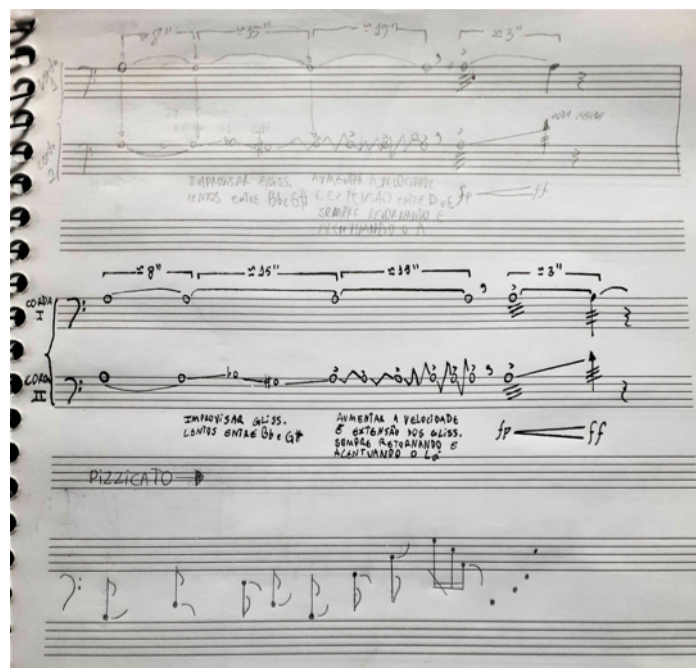


Figure 2. Initial sketches made by Quinamo. The pizzicato sketch was initially made on blank staves, but then finished on blank paper.

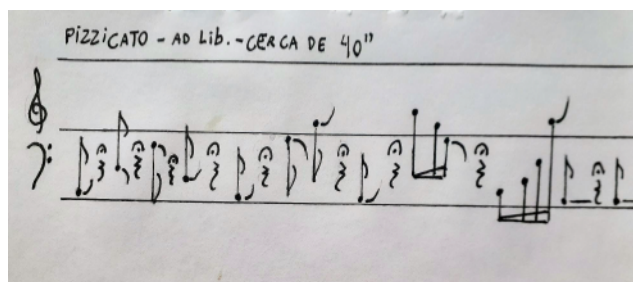


Figure 3. Pizzicato sketch. Quinamo thought the blank paper suited better for the intended musical idea.

Lucia Esteves saw the image of the shell as a space of resonance for itself, thus thinking about the creation of a room for listening. She was considering the online environment, in which the audience is distributed in different locations and we do not know which audio system they have. Thus the processing thought by the composer should work similarly in several environments.

Therefore, the processing is intended to simulate listening in a shell. The image of the shell reminds the composer of a reverberant place that emphasizes high partials, and can interact with the performer's gestures that give prominence to certain sounds in the instruments, like the *sul ponticello* technique. From some recordings made by Airoldi, Esteves designed the processing as a response of the shell from the cello sound, interacting with previously determined gestures.

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The cello appears as a shell exciter, associated with the image of the sea and the experience of placing the shell in our ear, thus hearing the sound of its space. Esteves thinks about the enhancement of high-pitched partials obtained through the *sul ponticello* technique, and a new texture with the muffled strings, which build the flow from *niente* to *fortissimo*, with a movement that went from sustained sounds to fast gestures, associated with granular transformation (made from pre-recorded cello samples). This sound was then processed with a

continuous reverb and a *freeze* effect that is activated periodically, intensifying the reverberant environment and the high partials.

Lucas Torrez thought of the poetic images raised to guide *Nácar*'s composition, specifically the idea of the sound of jets of bubbles on the bottom of the sea, as an accumulation of short sounds (grains) overlapping in a stochastic manner creating a sound mass, a texture that evolves independently from the cello. Thus, Torrez created a patch in Max/MSP consisting of a polyphonic sampler in which it was possible to trigger samples of gestures recorded on the cello, varying parameters such as the probability that a sample could be triggered, the intensity, the duration of the dynamic envelope to be played, and sample transposition. These samples were recorded by Airoidi based on short sketches made by Torrez that consisted mainly of short gestures of the fingerboard of the cello being percussed by the fingers of the left hand. (Figure 4).

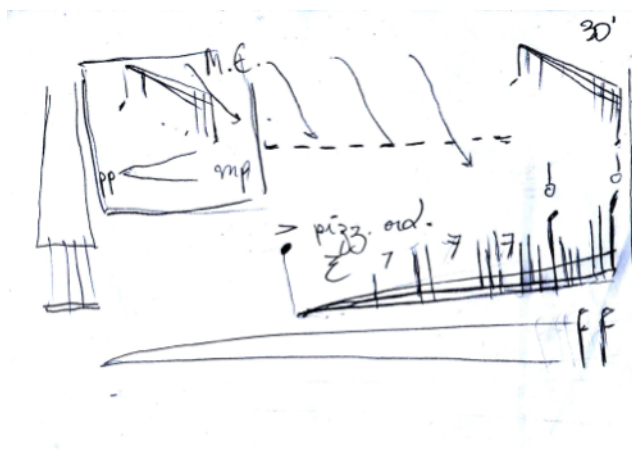


Figure 4. Short musical sketch made by Torrez.

Furthermore, along the creative process of the piece, Torrez's mental image of jets of bubbles gradually transformed itself into the image of the sound of sizzling micro-bubbles on boiling water. Torrez then interpolated two different probabilistic presets to create a gradual transition between two distinct sets of predominant sounds, the sounds of "bubbles", made from the cello samples, and free recorded samples of sizzling frying pans.

However, when listening to the recordings of rehearsals Airoidi made while improvising with the patch, Torrez realized that the second set of sounds worked better when triggered by the sound of the cello, distancing himself from the initial idea of an independent texture. Thus, the composer made changes to his patch, creating a sidechain with the volume peaks of the cello sound, so that it would modulate the probability of triggering the samples or not. Therefore, the electronic musical material of this segment of the piece ended up distancing itself from the initial idea of perception of texture, approaching the idea of gesture. In this way, greater interactivity between the cellist and the patch was also achieved, as the performer modulated the sound result of the patch in real-time.

Fellipe Martins proposed a perspective that integrates algorithmic music and generative visuals. In *Nácar*, Martins developed a process for retrieving musical information –pitch and energy– in such a manner that it can be transmitted and mapped to the computer process of redrawing the images provided by Airoidi. As Airoidi occupied the role of performer and painter, Martins examined ways to computationally extend the cello techniques to extrapolate mechanical limitations that the execution of the instrument imposes, therefore developing ways to paint a watercolor through the gesture of the performance. The main goal was to extract relevant information from the cellist's multimodal gesture through the traces and character which it

impresses into the recorded audio. In this way, we investigated some poetic/creative proposals such as: would it be possible to have the bow hair friction on the strings in the same way a brush hair dyes a canvas? Would it be feasible to hit the fingerboard in the same manner that lines and dots are printed on the paper?

The audio features were chosen to allow the most direct correlations as possible with auditory perception criteria. Therefore, pitch and energy were selected and a moving average was calculated for each of them. This kind of averaging reduces fast transients and spikes caused by intrinsic detection error though introducing a significant perceptual delay; the latter was especially used to reduce the character of reactivism thus introducing a more complex association between the cello and the dynamic watercolors.

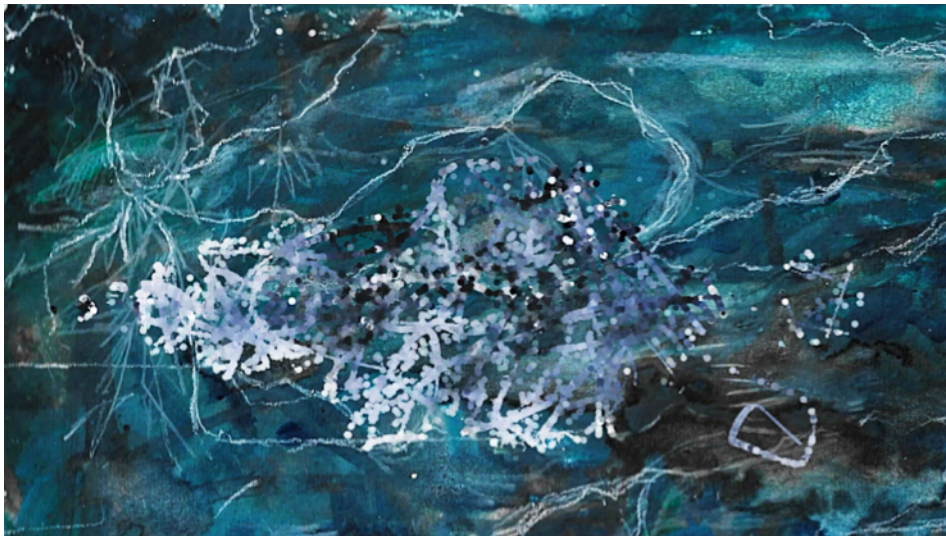


Figure 5. screenshot excerpt of *Nácar*

After the audio features calculation, their values were sent from Max/MSP to Processing through the *Open Sound Control* (OSC) protocol. These values continuously triggered parameters which have (re)drawn Airoidi's watercolours: point size, position, density, transparency, and others. Each generative watercolour uses a computational technique to suggest different traditional painting techniques such as pointillism, long brush strokes, uncontrolled ink on wet paper, the printing of gestures, among others.

Audiovisual pieces naturally tend to be collaborative given their increased workload. The presence of technological apparatus (coding environments, computer networks, hardware for artistic purposes, etc) increases this trend as the amount of knowledge and expertise for working in both worlds becomes hardly manageable for a single person. In developed countries, this generally tends to be the case, as institutions provide technical staff for assisting artists in their creative processes, however, proposing a piece like so in a developing country requires multitasking from all the members, even though each one is more prone to some areas. Moreover, the group agreed on a flexible division of these tasks as all the members were contributing and influencing each other's parts.

### ***Process convergence***

Although the poetic conception from which we took off was the same, it is evidently a heterogeneous process, in which each other's contributions followed different paths, and ended up meeting in the final elaboration. Therefore, the patches created throughout the individual



experimentation phase were assembled in a main patch in the form of abstractions (Figure 6). Each patch had its parameters controlled by automations in the main patch.

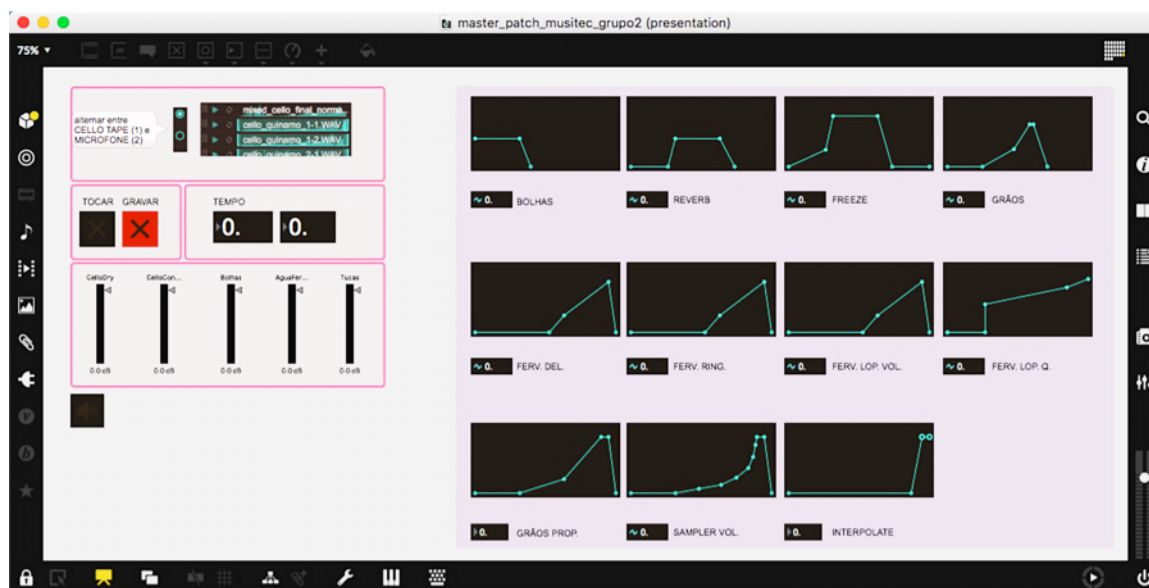


Figure 6. Main patch of *Nácar*.

We then established a formal structure in which the instrumental gestures and unique processes were overlapped. This was notated in a graphic score that guided Airoidi's performance.

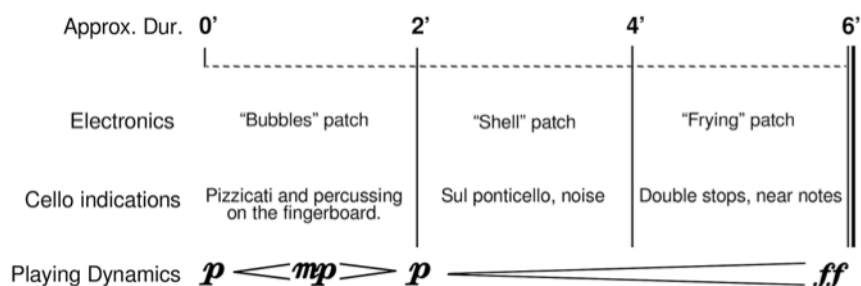


Figure 7. Graphic score that guided Airoidi's performance.

The piece's final elaboration, in which the results of the different creative processes needed to be connected, took place in an online meeting where one of the group members programmed the patch, while the others gave directions, raised questions and made suggestions. We elaborated automations for the electronic processing in order to create gradual transitions between musical ideas, hence composing the musical form of the piece. In this moment, the creative processes of each composer collided and influenced each other. We also made some optimizations, creating a device for controlling the automations, for the recording of the sound of the cello and a more user-friendly interface (Figure 6). After finishing the patch, we proceeded to record the piece. At that point we found a technical difficulty: Airoidi's computer was able to run the heavy audio processing of the patch, but when she tried to record the cello and the electronics simultaneously, the cello audio started to degrade and crackle up.

In that case, we found a solution to not being able to record the audio processing simultaneously: Airoidi recorded the cello separately, listening to the electronics, but without recording them; then, she sent the recording files to Lucas Quinamo, who recorded the audio processing in his own computer, using the recording of the cello to trigger the processing. Accordingly, the video

was processed and recorded by Martins after receiving the finished audio by Quinamo, since this process could hardly be followed collectively at an online meeting, for it requires high CPU and GPU processing. Then, he sent the finished product (sound and visuals) to Esteves, so that the premiere could be scheduled on Youtube.

It can be highlighted that, despite the conference's organization suggesting that the piece should be live-streamed, we chose to record and present it as a final product, a video file, to be premiered online. That choice was made for a practical reason: the hardship to establish a stable Internet connection that would be able to stream audio in high quality and synchronized. Moreover, we considered that it would not make sense to try and recreate a concert environment in an online streaming to attenuate the distance.

## Final remarks

Resuming, the completely remote creation took us to different results from which we were used to before the pandemics - results we wouldn't achieve if the creation took place in face-to-face meetings. The solutions we found for the difficulties in remote collaboration became elements that were inherent to the work we invented in that context.

Based on Simondon's thought, José Henrique Padovani, in an essay entitled *The imaginary instrument: the instrumental paradigm in musical creation* (2017) raises a reflection on the proposition "to compose is to build an instrument", exposed by the composer Helmut Lachenmann in *Über Komponieren* (Lachenmann, 1996b). Padovani claims that the act of composing is a "tactile" discovery, in which the instrument that is invented for that composition is being discovered as the process unfolds. For Padovani, creating music starting from an "instrumental paradigm", that is, from the notion of instruments "as technical objects materially given or engendered as images" (Padovani, 2017: 2) whose mechanisms can be explored when we play them, allows us to compose as if we were inventing a machine. To compose is to invent the object-image that Simondon calls an instrument, "constituted by the coupling of sounding mechanisms." (Padovani, 2017: 6). However, when we consider remote musical creation, even if we were composing for an unprocessed solo instrument, other sound elements (interfering or even altering the sound) would be present in the final result - and the solutions we could possibly find to avoid them too. Thus, in *Nácar*, we incorporate these elements into the work. It is possible to say that *Nácar* is a machine in which the cello is just one of the elements that makes its gears work, just as the paintings, electronics, distance and technological possibilities and limitations are.

The development of musical instruments has received numerous contributions throughout the 20<sup>th</sup> century and, more recently, the integration (partial or total) with electronic/digital means opened broad research areas. In *Nácar*, we would like to address the fact that we are creating a collective integrated media instrument, whose most salient parts (cello, watercolors, digital audio processing, digital image manipulation, musical improvisation) rely on our poetic images and are driven by many hands simultaneously. Although this instrument can be divided into parts (such as a material part, a poetic part, an imagetic part and a software one), the contributions of the *imaginary luthiers* (the authors, co-creators of *Nácar*) were transversal and multi-focused. Moreover, we consider that all the members of the group act as instrumentalists of this multimodal device.

One layer down in this process, each salient part of this big device can also be qualified as an instrument: the cello improvisation can be regarded as an instrument developed for interacting with the electronic sounds and the visuals; each of the digital audio processes can be regarded

as a single purpose electronic device handcrafted for extracting the most desired sonority in the context of cello/visual execution, and so on for the others parts. In this sense, *Nácar* can be thought of as a nested collective instrument, a system made of smaller systems in which layers of tactile discoveries were gradually being deposited, superposed and thickened to constitute a whole, which is operated in a non-trivial manner.

Finally, we would like to point out that *Nácar* emerged through a process of collective creation that crystallized into a group focused on this subject. We have since been discussing and researching issues such as collaboration, creation mediated by images, improvisation, notation, integration of styles, the blurring of boundaries between performance and composition, the convergences and divergences between composition, experimental music and sound art and the destitution of the individual in artistic creation. Considering Simondon's conception of invention as an attempt to retake an interrupted flow, we aim to enhance the potential of invention by gathering utterly different artists into a continuous process of interrupting and retaking the flow of ideas, sounds, images and feelings.

In this way, *Nácar* is a machine, an artistic object, an invention that generates sounds and visuals, created in the context of a piece mediated by technology, to be heard and seen through a computer, in which the body of the performer is not present. It was built through the exchange of five artists and the agency of images that permeated them and through the coupling of different instruments we built throughout the process.

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# Musical Creation Based on Images of the Composer-Performers on *El ojo de la mujer*, for Singer and Saxophonist

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**Abstract.** This paper presents the processes of collaborative creation in the work *El ojo de la mujer* (2018), for singer and saxophonist, from images. Such processes explore musical and performative creation from poetry, bodies, images, and composer-performers interactions, compacting with some current discussions and practices in the contemporary music scene. In a cycle interspersed by images, Gioconda Belli's poetry and the composition and performance of the authors of this work establish the bodies of the performers as a structuring sound element of the piece. The cycle permeates the four sections of the piece and directly influences the strategies, processes, and solutions for the construction of our musical performance. In this sense, the present text discusses how poetry, composition, and performance relate and mix, providing new creative ways of listening while presenting the elements, sound structures, experiences, and techniques used.

**Keywords:** *El ojo de la mujer*; Collaborative creation; Performative gestures.

## Introduction

The sound-musical and performance creation of *El ojo de la mujer* proposes a creative model: composer-image-performer-image. The proposed model was thought from the analysis of the performance of the piece, as well as its score by the authors of this article, aiming only at the analytical understanding of the creative process.

The piece *El ojo de la mujer* (2018) was conceived from the homonymous book (1991) by the Nicaraguan poet Gioconda Belli (b. 1948) and composed in 2018 by Guilherme Ribeiro (b. 1994) in a collaborative creation process with the singer Laiana Oliveira (b. 1987), and saxophonist Fernando dos Santos (b. 1993). All levels of creation, development, and realization were conceived from images: the image of the composer in the poet's text and the image of the performers in the composer's sound-musical and performative ideas.

As far as images are concerned, some excerpts from poems by Belli's book are chosen to integrate the piece and contribute to its central proposal: the body as a structural and sound part of the work. In this sense, the piece is divided into sections whose sound-musical and

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performative structures are created from the *corporealities* imagined in the reading of Belli's poems. There are four sections: i. *La mirada a los seres*; ii. *La mirada al hombre*; iii. *La mirada al horizonte*; iv. *La mirada al interior*. For each of these sections, there are sonorous and performative gestures that embody sound, which give the bodies of the performers not only the visibility of the gestures but also their sound and their integration as a structural part of the musical creation and performance.

The composer-image-performer-image model is conceived in this creative process as a structure that takes into consideration how composer-performer collaborations can influence and contribute to the construction of creation in the context of contemporary concert music. From this perspective, this piece, which is based on different image proposals, has provided different creative possibilities, as well as new ways of listening, interacting, and reacting to the fruition of a musical performance.

### The body as an element of sound structure in the creation of *El ojo de la mujer*

The initiative to compose this piece arises from the desire to think of the performer's body as part of the composition. In addition, more than just any body, there was also the desire to report a discourse that spoke about the woman's body in the face of the sexist and misogynist society that still surrounds us today. In this sense, Gioconda Belli's book was essential not only for the construction of this discourse but also for thinking about the performers' bodies as an integral part of the sound structure of the piece. To begin this discussion, we will present some examples of excerpts from the piece.

Starting with section I (*La mirada a los seres*), we have, in the score, a moment in which there is an indication, on the singer's part, for her to hit the ground with the sole of one of her feet (shoes) in such a way that the gesture results in a strong sound with a defined attack, with or without resonance, depending on the kind of ground surface where the performance takes place (Figure 1). Such a gesture is not only visual but also, and perhaps more evidently, sonorous. The gesture encloses a continuous sound of the saxophone and marks the entrance of the vocal part, as we see in the following excerpt:



Figure 1: The first system of section I of *El ojo de la mujer*. The circle above the score shows the indication (symbol) cited in the previous paragraph. (Ribeiro, 2018)

In the next section (*La mirada al hombre*), which is the section that we will use later with more emphasis to relate the body and the sound, as well as their technical configurations in the piece, we have the indication, still in the singing part - as will be all the examples below - for the singer to sing with her two hands over her mouth (Figure 2). For this gesture, the singer moves her hands over her mouth intending to represent the hands of another person who tries to silence her voice while she tries to pass her message through singing. The hands slip out of her mouth from time to time, representing the woman's attempt to escape from the hands of the person who tries to silence her voice. The gesture is frantic, and as in the previous example, it is not

only visual but also sonorous. The hands over the singer's mouth while she sings result in a muffled sonority of voice. The text is, at times, unintelligible, also contributing to a sonority of articulations and attacks that are not well defined, as well as to the erasure of the high harmonic partials, leaving for the singer's voice a low and ill-defined sonority. Simultaneously, the soprano saxophone transits through a medium-high sonority, well-articulated and with well-defined attacks (Figure 2), but also in a frenetic character:



Figure 2: The first system of section II of *El ojo de la mujer*. The circle above the score shows the indication (symbol) cited in the previous paragraph. (Ribeiro, 2018)

The presence of the singer's body in the sound structure of the piece is also present in section III (*La mirada al horizonte*) when she, from what is proposed in the score (Figure 3), projects vocal sounds such as whistles, air pressures, as well as vocalizations with defined heights and note sequences at the same time that with the fingers of one of her hands she performs a quick oscillation with up and down movements of the fingers in front of her mouth, resulting in a sonic oscillation of everything that is performed by her voice.



Figure 3: the first system of section III of *El ojo de la mujer*. The circle above the score shows the indication (symbol) cited in the previous paragraph. (Ribeiro, 2018)

Finally, as an example of the fourth and last section of the piece (*La mirada al interior*), we have, in the singer's part, the gesture of the singer hitting, with her own hands, the thighs of her legs, alternating with the gesture of tearing her dress (Figure 4). Again, these are not only visual gestures. The sound of the dress being torn, as well as the sound coming from the open hand strokes the singer makes against her thighs, join the sound structure of section IV. At the same time as these gestures are happening, the singer also freely performs a lullaby by Brahms (*Wiegenlied, op. 49, n. 4*), thus counterposing an aggressive sonority (with the aforementioned gestures) to light and calm sonority.

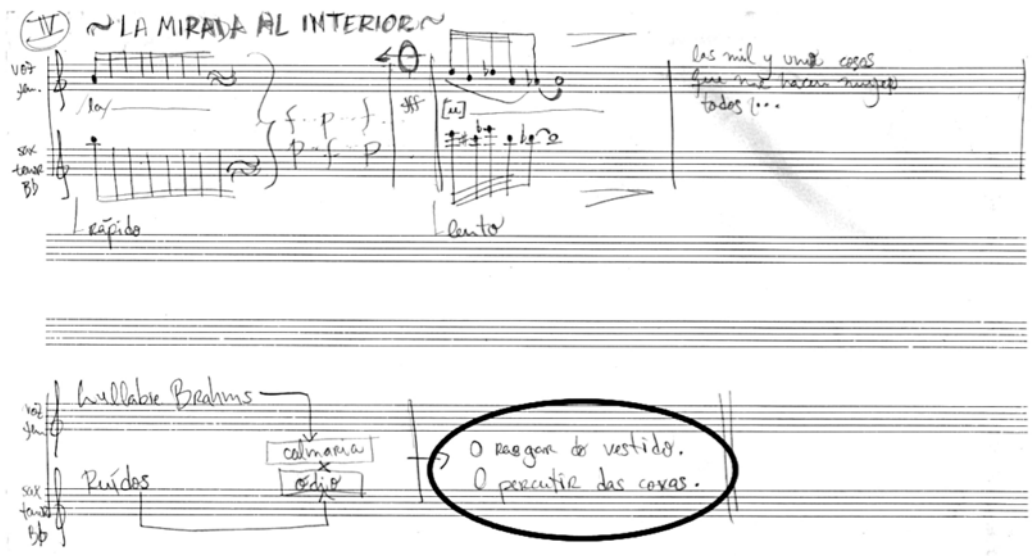


Figure 4: The section IV from *El ojo de la mujer*. The circle above the score shows the indication (symbol) cited in the previous paragraph. (Ribeiro, 2018)

*El ojo de la mujer* is a piece that uses the performers' body gestures as a sound element in the composition of the sound structure of each of its four sections. After presenting the four previous excerpts, we return to the example of the second section of the piece.

In section II of *El ojo de la mujer*, entitled *La mirada al hombre*, we conceive, through creation and performance, a confluence between sound, body, and poetry, as if they were a single element. Since in *El ojo de la mujer* the performers' bodies act not only as a visual or technical element of the performance, the audience will notice the presence of the performers' bodies also in the sound and poetic structures of the piece. This fact is noticed in all four sections of the piece not only in the performance of the singer Oliveira, since the presence of the text in her part would evidence more superficially the synthesis between body, sound, and poetry, but it is also noticed in the part of the saxophonist Dos Santos, whose performance also embodies sound and poetry.

This second section, which is the shortest of the piece, in the score includes the following description: “Mão-na-boca, o calar”. The woman looks at the man (*La mirada al hombre*) and tries to communicate with what is read in the poem *Menstruación*, by Belli (1995: 61):

Todos los meses  
esta communion  
del alma  
y el cuerpo;

At this moment, Oliveira uses her hands to block her mouth while, at the same time, she sings this excerpt from the text that alludes to a woman's menstrual cycle. The hands try to silence her voice and, at the same time sounds the timbre of a muffled and unintelligible voice, and this resumes the performance and the poetry. We have, then, in poetry and in sound, the representation of the cycle of the erasure of the woman's body by the society in which we live, portrayed in Belli's poetry.

Yet in this section of the piece, we will dedicate ourselves here to the “presence” of the singer's body in the sound structure of the composition and performance of *El ojo de la mujer*, as well

as to the relation of this "embodied sound structure" to the technical-performative configuration of the piece.

The gesture present in that excerpt of section II (Figure 2) is the one that best synthesizes a sonic transformation of the singer's voice beyond what is established as 'ordinary singing'. Moreover, such a sound transformation, in the realm of non-electronic music, was only possible through the use of the singer's hands as an 'interfering object' in the main sound source. In this sense, the configuration of technical-compositional and the technical-performative result in the transformation and alteration of the ordinary sound aspect of the singer's voice. The 'interfering object' (the singer's hands) added to the vocal emission configures a transformation of the sound coming from the primary sound source, thus altering the sound articulation of the voice, leaving it undefined, also removing the harmonic partials from the middle and treble region. The perceptual result is an alteration in the ordinary sound aspects of the singer's vocal emission, which contributes, in turn, to the embodiment of the piece's sound performance.

Finally, but equally important, we emphasize that all these sound-visual gestures are conceived from images. In the example discussed in section II, for example, when Oliveira sings with her hands over her mouth, we can describe the image of a woman being prevented from speaking by the authoritarian sexist of our society, which reminded us of an interview of Luciano Berio (1925-2003) in which he says:

*The voice, from the most insolent noise to the most refined singing, always means something, always refers to something other than itself, and creates a very wide range of associations: cultural, musical, [...], emotional, physiological, [...]. (Berio, 1988, p. 80, translated by the authors)<sup>4</sup>*

All images were conceived in a cycle format: the images proposed by Belli's poetry, the images proposed by Ribeiro's composition, which start from the images conceived by the reading of Belli's poetry, and, finally, the images proposed by the singer Oliveira and by the saxophonist Dos Santos to the appreciating public, which start, in turn, from the images conceived by the reading of Ribeiro's composition.

## **The techniques and sonorities of breathing, a relevant performative element of the piece**

In *El ojo de la mujer* breathing is present as gesture, technique, and residual sound that reveal themselves at different moments in both the singer and the saxophonist's part. We can observe in section I (*La mirada a los seres*), eolian sounds and key clicks projected by diaphragmatic breathing, together with the texture of fricative consonants /s, f, x/ in the voice. Although works for saxophone and voice are not so usual, these two instruments have in common the mechanism of sound production, which happens through the air conduction through the body.

In this regard it is important to consider that breathing takes place through the diaphragm, a muscular membrane found below the lungs, which covers the organs of the digestive system. When we inhale, the diaphragm contracts, creating a vacuum that enlarges the chest cavity, and when we exhale, there is a relaxation that resumes the dome shape of the diaphragm, compressing the lungs. Therefore, for the sound to come into existence through the voice or the

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<sup>4</sup> Original text: "A voz, desde o ruído mais insolente até o canto mais refinado, sempre significa alguma coisa, sempre se refere a algo diferente de si mesma e cria uma gama muito ampla de associações: culturais, musicais, cotidianas, emocionais, fisiológicas".



saxophone, we need to consciously activate this entire voice production mechanism, which consists of the so-called *appoggio*, a crucial element for the performance of this piece, both for the singer and the saxophonist.

Returning, however, to the voice, it is important to point out that there is a conscious application of the *appoggio* in the spoken and sung voice during the piece as a way to aid in the projection of the voice and as a support for the textures of fricative consonants to occur without harming the vocal performance. Also, in section I of the piece, the composer makes creative use of a technical exercise of diaphragmatic breathing, contraction, and expansion. For this, in the composition, Ribeiro uses the fricative consonant /s/ that he extracts from the word *dios* in the poem *Y dios me hizo mujer*, by Belli. Thus, poetry, breathing technique, sonority, and body come together in a performative gesture created from an image that relates God, the woman, and her body (Figure 5).



Figure 5: The third system from section I of *El ojo de la mujer*. (Ribeiro, 2018)

For the singer, in addition to the use of consonants from the text *Y dios me hizo mujer*, the phonemes /s/ and /r/ were explored as one of the musical layers, referring to exercises in the practice of singing such as the expulsion of air as quickly as possible, and sustained vibration in heights in the middle and low range of the voice - which happens from the control of the air output from the indicated heights, establishing a dialog with the saxophone in *frullato*.

For the saxophonist, section I demands a sensitive interaction between the different sound proposals, in which aspects such as dynamics, silence, extended techniques (e.g., *frullato*), and the sonorous percussion of the keys of the instrument are explored. In technical-musical terms, the use of these sound strata should be in constant dialogue with the body and breathing, as well as being attentive to visual communication, a fundamental aspect for the sections I and II of the piece.

In the second section *La mirada al hombre*, breathing figures as a gesture from the exhaustion caused to the singer by speaking the text as fast as possible with both hands in her mouth muffling the sound output. In the same way, the saxophonist also reproduces this same image by using articulate and fast body and sound gestures.

Thus, in moments of exhaustion, the breath acts as a gesture and residual sound. At the time the piece was performed, each section of the piece was intercalated with music by other composers, which gave the performers time to catch their breath. However, in the case of the work being presented in its entirety and without interruptions, the sections provide for rest and reestablishment of bodily and respiratory activity by the very materials chosen to compose the beginning of each section.

## The process of constructing musical performance from images

The musical performance of *El ojo de la mujer* involves complex processes that are related to details about body and image. The poetics of the work evokes different performative gestures that are related to images and to the composer's and the performers' imagination, which need to find internal knowledge, related to their own experience as performers, and external to the work, which can influence the understanding, concepts, body and sound gestures.

From this understanding, we go to the 'contemplation' suggested in section III of the piece, entitled *La mirada al horizonte*, which is related to the image of freedom. In this section, improvisation is a common thread, and the composer presents images and sound gestures that the performers must relate to and also relate them to the space and the audience. In the performance, the singer occupies the space destined for the performance walking and emitting sounds of birds and parts of a melody from the song *Francisco* (1976), by the Brazilian composer Milton Nascimento (b. 1942). Similarly, the soprano saxophone is used to enhance this image, for which a sequence of multiphonics was established as a form of incorporation. In addition, there is an echo in the reverberation and resonance of the saxophone sounds.

In the last section of the piece - as in the first - the creation is based on the poem *Y dios me hizo mujer*, by Belli, in which the narrative of the musical performance starts from the images of two opposite feelings, 'calm' versus 'hate'. This image cycle, constructed and developed during all sections of the piece, directly influences the composer's and the performers' thought, creation, and bodily and sonic performance processes, in which the strategies and solutions for the construction of the musical performance occur collaboratively and dynamically.

The collaboration between composer-performers in *El ojo de la mujer* is fundamental for the development of musical performance. During the construction process of the performance, the direct contact with the composer allowed access to the thought universe of sound, over which it is possible to establish parameters for the creation of the performative gestures.

The performance practice of the work demands a connection between the performers, and in it is necessary a process of experimentation and exploration, crossed by interpersonal interactions. The relationship between the singer and the saxophonist is fundamental to give meaning to the poetics of the piece, especially with the imagetic triggers presented by the composer. Still in section IV, the last section of the piece, the percussion of the singer's body occurs while she rips her dress and hits her legs, a gesture that is contoured by aggressive sounds and noises in fortissimo by the saxophonist: aspects related to the image of 'hate'. This moment is full of possibilities of meanings, since the singer is alone on stage and the saxophonist is playing hidden. At the same time that the aforementioned performance occurs, the song *Wiegenlied* (op. 49, n. 4) by Johannes Brahms (1833-1897) is sung in *boca chiusa* by the singer, referring to the image of 'calm'. From these perspectives, how can performative gestures be created from images?

In this last section, it is interesting to note that during the performance the saxophonist must be hidden, and the singer sitting on a chair while turning, in an allusion to playing, like a child. The whole poetics of *El ojo de la mujer* was built in a continuous process of dialogues and rehearsals that went beyond exclusively technical-musical factors to the exploration of other aspects that permeate the musical performance, such as the body, the space, the audience, and time. The recognition of the self and the other through different types of bodily, sonic, and verbal interactions characterized the collaboration in *El ojo de la mujer*. The whole process of organizing the musical performance and experimentation was based on choices made together, in a shared and debatable way: factors that enrich and modify the musical performance based on the recognition and conditions of the performers' bodily limits.

The score of *El ojo de la mujer* suggests several performative gestures that go beyond musical writing (e.g., improvisation), which serves as a guide to explore the images created for the development of the piece's performative process. The poems, which are an essential part of the work, must be mapped and studied, also locating specific moments for each section. In *La mirada al interior* (section IV) several sound strata between singer and saxophonist must be organized, practiced, and planned. Moreover, in musical technical terms, this last section requires a lot of attention, since there is no visual communication, and auditory communication is established as the tonic, an aspect that requires constant action and reaction.

The bodies of the performers go through different development processes until they reach the apex that this section demands. The composer and the performers propose to the appreciating audience an artistic experience, combining knowledge, history, ideas, images, and inventiveness that are based on “different bodily sensations related to the phenomenology of performance temporality” (Cook, 2018: 7). The intersection between poetry and sound creation runs through aspects related to culture, women, politics, and society, and in this sense, the audience also creates their image of what they hear, see, feel, and perceive from *El ojo de la mujer*.

## Conclusion

The collaborative music creation process in *El ojo de la mujer* established an important collaboration between the composer's ideas and the experimentations conducted by the singer and the saxophonist, who analyzed and suggested sound possibilities for the performance. At each of our meetings, the score took shape and the ideas were established, resulting in a piece of four sections based on the following images: I - *La mirada a los seres*, II - *La mirada al hombre*, III - *La mirada al horizonte*, and IV - *La mirada al interior*. In these four moments of the piece, through the image of beings, in the man, in the horizon, and in the woman herself, the musical material was assuming different forms, not descriptive, but built by the sonority of the phonemes of the text and vocal and instrumental techniques that approximate the sonority of the voice and the saxophone.

Although the texts and the musical material of each section are distinct from each other, some elements permeate the entire work. Such elements concern the images created by composer Ribeiro from the images he formed about Belli's poetry and formed descriptions of each section of the piece, being: I. *Diafragma, o respirar* that happens in a gestural way, extended technique, and residual (when the sonority of breathing is foreseen, but not indicated in the score); II. *Mãona-boca, o calar*, visual and sonorous element that happens in the second section; III. *Boca chiusa, o contemplar-se*, present in the third and fourth sections; and IV. *Percutir do corpo, o exprimir-se*, the expressing of oneself, is a visual, sonorous, and symbolic gesture, giving a wide range of meanings since the saxophone is hidden and the singer is alone on stage.

Collaborative composition allows composers and performers a true immersion in all dimensions of a work. Based on the assumption that every work has a degree of openness, and that every performer has the role of co-creator (regardless of the historical period of the work), collaborative compositions provoke performers and composers to question the limits of creation by testing their ideas. Moreover, we can perceive a great fluidity of writing in works where the composer has at his disposal performers willing to experiment and suggest. At the same time, collaborative compositions place the interpreter as an active part of the work's choices, expanding the catalog of possibilities for the instrument and voice. In our analysis, this occurs in *El ojo de la mujer*: a piece about bodies, sound, poetry and images that is always open to new looks, imaginations and listening.

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# The music of Queen: connecting movies and videogames

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Nicola Bizzo<sup>1</sup>

**Abstract.** The iconography of the English rock band Queen spans several media and forms of communication, from the physical LPs and singles covers to the moving images of videoclips and movies. Queen wrote the original soundtracks for two sci-fi movies: *Flash Gordon* (1980) and *Highlander* (1986). In the first one they mixed sounds of synthesizers and orchestra creating a score similar to that one of a classical opera, whilst for *Highlander*'s soundtrack they preferred focusing on more standard songs-form structure, but they were strongly influenced by the story itself and its characters and therefore the soundtrack keeps these elements and gives them new form. The paper discusses other projects of the band which developed specific musical languages: the videogame *The eYe* (where the songs were mixed to achieve an integration with the action-adventure electronic structure, focusing mainly on music and disregarding the lyrics) and for the musical *We Will Rock You*.

**Keywords.** Queen; Soundtracks; Highlander; Flash Gordon; the eYe; videogames; synthesizers

## Introduction

The relationship between the music of the English rock band Queen and visual media is complex and articulated and can be analysed following different paths. The iconography of the group spans several media and forms of communication, and it has been developed with the aim to increase the dramatic impact of the performance or the image of the band itself. This article aims to discuss the various connections between the band with the movies, by exploring the soundtracks for *Flash Gordon* and *Highlander*; the videogames, by analysing the soundtrack of *The eYe*; and the musical: by studying the development of the show *We Will Rock You*.

## Flash Gordon (1980)

One main direction for Queen started in 1980 with the soundtrack of the movie *Flash Gordon*, for which the rock band compose the music mixing together the sounds of synthesizers and orchestra. This characteristic led the movie and the score to come close to a classical opera, for the overall conception and structure<sup>2</sup>.

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<sup>2</sup> This specific use of electronic instruments anticipate Freddie Mercury's *Barcelona* (1987) solo album.



Figure 1. The front cover of *FLASH GORDON* (LP), 1980.

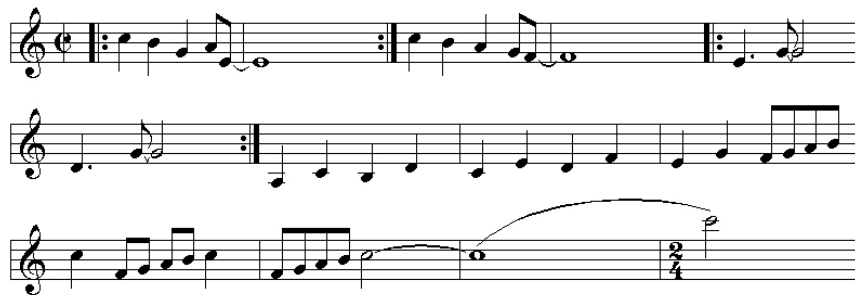
Besides that, the use of the *leitmotiv* may recall Wagner’s idea to connect music with the movie characters, in order to underline dramatic situations during the plot. Another reference to the German composer is the use, in the movie, of the bridal chorus from the opera *Lohengrin* but rearranged for electric guitar. Three main themes are linked to movie characters: *Flash Theme*, *Ming’s Theme* and *Vultan’s Theme*. To which we must add the *Love Theme* and the *Battle Theme* that have a reprise during the plot. This approach is not new in soundtracks, and one of the best examples of using repeated themes associated with characters or specific situations can be found in *Star Wars* trilogy composed by John Williams.

In *Flash Gordon* the musical themes are simple and, therefore, easy to recognize and memorize. For example, *Ming’s Theme* written by Mercury is short and plain even with the use of some chromatic notes (Example 1).



Example 1. An extract of *Ming’s Theme* (author’s elaboration).

In *Football Fight*, the use of an ascending scale at the end of the musical phrase is opposed to the previous example where a descending chromatic scale is linked to Ming’s character (Example 2).



Example 2. An extract of *Football Fight* (author’s elaboration).

One of the most relevant track of *Flash Gordon* soundtrack is the short fragment (less than 2 minutes) called *The Kiss*. The piece, written by Freddie Mercury, is characterized by the presence high-pitched notes which recall something ethereal. No clear words are sung, only short breaths which bring to mind the movie scene where the main character Flash comes back to life after receiving the kiss (i.e. the title of the piece) by the princess Aura (Example 3).



Example 3. An extract of *The Kiss* (author's elaboration).

The use of synthesizers was something unusual for Queen until that time. They started to use them in 1980 for the previous album *The Game* and then for the *Flash Gordon's* soundtrack. These sounds give to the movie a specific nuance: since the appearance of *Star Wars* trilogy, the use of synthesizers in the soundtrack greatly connotes sci-fi movies. The first example of an electronic instrument used in a movie is the theremin in *The day the earth stood still* (1951). In the movie *Forbidden planet* (1956) the soundtrack only consisted of electronic sounds: the use of the instrument evokes contexts of science fiction such aliens, UFOs, and other extra-terrestrial sceneries. The music of Queen, in this case, enriches the final reception of the movie itself with all the reminiscences.

Queen music, in *Flash Gordon*, is mainly instrumental and includes the classical orchestral arrangement by Howard Blake. Only two complete songs with lyrics (*Flash* and *The Hero*) are part of this original soundtrack and they are placed during opening and credit titles, so they create a frame at the beginning and at the end of the movie. The presence of music increases during the movie following the dramatic path of the story: in this case music emphasizes what can be seen on the screen.



Figure 2. The original promo poster for the movie.

In the 1970s, several famous directors attempted to make a film of the story from the original comic strips. Federico Fellini optioned the *Flash Gordon*'s rights from Dino De Laurentiis, but never made the film. George Lucas also attempted to realize a film from this character in the 1970s. However, Lucas was unable to acquire the rights from De Laurentiis, so he decided to create *Star Wars* instead. De Laurentiis also discussed hiring Sergio Leone to direct the movie, but Leone declined because he believed the script was not faithful to the original Raymond's script. Finally, the Italian producer hired Mike Hodges as the director.

Hodges' *Flash Gordon* film stars former Playgirl-centerfold Sam J. Jones in the main role. The plot is loosely based on the first years of the original history, thus revising Flash's origin by making him the quarterback of New York Jets instead of a polo player. Raymond's drawings feature in the opening credits, as appear as the signature *Flash's Theme* by Queen.



Figure 3. Freddie Mercury wearing the *Flash* t-shirt during live shows and in studio photo sessions

*The Flash OST [original sound track] is a bizarre and hypnotic work when considered in isolation, well worthy of stoner devotion reserved for the likes of Piper At The Gates Of Dawn or the cool, modern appreciation of Morricone. It bleeds atmosphere and poise, but is not adverse to hilarity, even becoming hysterical at some points. A fine blend that is never too self-conscious or over-complicated. But married to the images that Mike Hodges provides, the work becomes an accomplished, slick and instinctive whole. Beginning with the main musical themes and continuing through similarities to operatic convention, it is a cohesive whole (Ross, 2009).*

*I'm VERY proud of our music for the Battle Sequence... it's all very fresh on my mind... it was totally thrown together in the old-fashioned way... playing TO PICTURE – and there was a moment when, left carrying the can... because Queen was actually busy making another album at the same time)... I got on a roll with the Hawkmen and their rescue attack... I could still 'sing' you that whole sequence... to me it's totally a song. I'll add a couple of interesting (perhaps) facts. This was the first time that we, as a band, recorded with synthesisers (previously we always had the declaration on our album sleeves "No Synthesisers"). And I believe that this really is the first time that a proper score, to something other than a story about musicians, was ever applied to a film by a rock band. It's very common now, but I remember having a conversation with the amazing producer of this film, Dino de Laurentiis, early on in the relationship... wherein he said... 'The score of my movie cannot be rock music... it has never been done' And I said... 'but it COULD be done' (May, 2009).*



The original *Flash* videoclip was filmed at Anvil Studios, London, in November 1980 and was directed by Don Norman. It shows the band performing the song to a screen showing clips from the film within an iconographic context where music and images merge together. It is interesting that Brian May –one of the most iconic guitar player of that time– is playing in this videoclip an Oberheim OBX synthesiser, the same electronic instrument used in the movie soundtrack both for music and special effects: the videoclip in this manner suggests a studio recording session similar to the actual ones.

In that period, Freddie Mercury used to wear a t-shirt of Flash theme-based during concerts in order to promote the movie and in live shows only pieces *Flash*, *The Hero* and *The Battle Theme* were played because they were more suitable for a live set. Several remixes of the song *Flash* were produced in 2002 with German producers Vanguard, mainly for dance and club charts (Figure 4).



Figure 4. The *Flash* remixes (2002).

## Highlander (1986)

Six years later Queen decided to write the music for another sci-fi movie, *Highlander*. This time, they preferred focusing on more standard songs-form structure, but they were strongly influenced by the story itself and its characters and therefore the soundtrack keeps these elements and gives them new form.

Also in this case the collaboration with the movie director was a central aspect which allows the music and the movie to be strongly connected one another in order to create a coherent atmosphere (for example the video for *Princes of the Universe*). This strong collaboration extended to the realization of the videoclips as well. The presence of songs within the movie is frequent: unlike from what happened in the *Flash Gordon*, the songs can be heard several times during the movie in *Highlander*. The presence of the music is continuous, and the lyrics help to better understand what's going on, suggesting characters' emotions and underlining the turning points of the plot. Having worked with director, Queen have been able to create specific songs that recall the atmosphere of the movie (*A Kind Of Magic*, *Princes Of The Universe*, *Don't Lose Your Head*) and that can underline the characters' feelings (*Who Wants To Live Forever*, *One Year Of Love*).

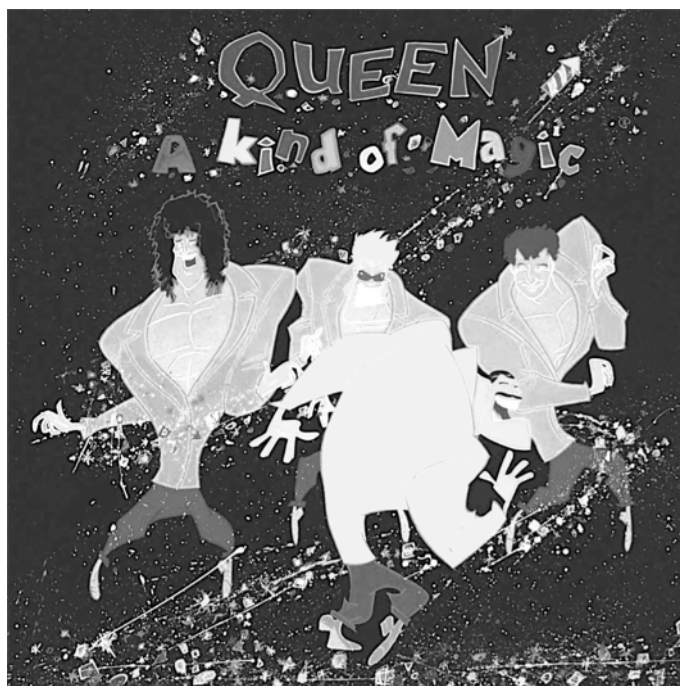


Figure 5. The "A KIND OF MAGIC" LP (1986)



Figure 6. Christopher Lambert starring in *Highlander*

*Highlander* is directed by Russell Mulcahy and based on a story by Gregory Widen. It stars Christopher Lambert, Roxanne Hart, Clancy Brown, and Sean Connery. The film chronicles the climax of an ages-old war between immortal warriors, depicted through interwoven past and present-day storylines.

*Highlander* had a little success on its initial phase, grossing over \$12 million worldwide against a production budget of \$19 million, and received mixed reviews. Nevertheless, it became a cult film and inspired film sequels and television spin-offs (where *Princes Of The Universe* is used for the title sequence in the television series). The movie's tagline "there can be only one", has carried on into pop culture.

*Queen's songs take the preposterous, bloated concept and elevate it into ever-more-preposterous, ever-more-bloated grandeur. Connor watches his lover age in their craggy Highland home and buries her as Freddie Mercury operatically blasts the heather with the stentorian operatic anguish of Who Wants to Live Forever— bolstered by string arrangements from soundtrack collaborator Michael Kamen. The proggy, heavy 'Princes of the Universe'*

gives even the text of the opening credits a surging drama. 'Here we are, born to be kings/We're the princes of the universe!' The chords continue into the opening scene, where Connor sits in contemporary Madison Square Garden, watching hairy, bear-chested, spandex-clad wrestlers wriggle their fingers and hips flirtatiously before they bash together in sweaty struggle (Berlatsky, 2021).

The relationship between the movie *Highlander* and the band is strongly connected: in many records (vinyl singles) published at that time the characters of the movie appear in the front cover instead of the band members (Figure 7). This choice represents, for Queen iconography, a further step in the direction of unifying music and images, something unique for the English rock band.



Figure 7. Vinyl picture sleeves taken from the *A Kind Of Magic* album

As mentioned above, the collaboration between Russell Mulcahy and Queen was intense as he directed the videoclip *Princes Of The Universe*. This videoclip was shot on 14 February 1986 at Elstree Studios in London, on the Silvercup rooftop stage used for the film. It consists mostly of Queen performing the song, intercut with scenes from the movie. Christopher Lambert reprises his role as Connor MacLeod for a brief appearance in the video, where he confronts Freddie Mercury in a sword fight: Mercury uses his microphone stand as a sword. Brian May is seen playing a Washburn RR11V electric guitar instead of his usual Red Special.

The connection between movie, music and images is total: there is an intense exchange of mutual ideas that characterizes any media of the franchise, and this helps to create an organic and coherent universe where a single element can be extracted still retaining its logic contact to the movie.

## Flash Gordon and Highlander: the comparison

Table 1 summarizes the main differences between the *Flash Gordon* and *Highlander* movies underlining the different approach of the band and the similarities in the creative process.

Table 1. Comparison of Queen's approach to soundtrack between *Flash Gordon* and *Highlander* movies.

Flash Gordon (1980)	Highlander (1986)
Music is mainly instrumental	Music is made by sung tracks
An open orchestral structure can be heard all the time	Song structure is classic
Short musical segments repeated as Wagner's leitmotif when the main character (Flash Gordon) takes actions	Long complete songs
Only 2 complete songs at the beginning (opening titles) and at the end (credits titles) of the movie	Complete songs along all the movie
Additional orchestral arrangements by Howard Blake	Additional orchestral arrangements by Michael Kamen
The presence of music increases during the movie following the dramatic path of the story itself: in this case music emphasises what can be seen on the screen	The presence of the music is constant during the movie and the lyrics help to better understand what's going on
Music created by synths is used often as special effect and underlines the movie's fiction atmosphere	Music is never used as a special effect
Wagner's bridal chorus from opera Lohengrin is played by Brian May on guitar	A cover of New York, New York by Liza Minnelli is sung by Freddie Mercury

## Other Projects

Queen and the single members of the band collaborated sporadically during their career in many other soundtracks for movies or musicals, but never in a such way as they did for *Flash Gordon* and *Highlander* projects, since in ther cases they were not involved from the very beginning in the movie realization. In these cases (Table 2), they wrote music (mainly one single track per movie) and the soundtrack were often a collaboration with other artists, or their tracks were used for a movie, even if the music wasn't originally conceived for that particular project. This kind of approach is, nowadays, the most common: a classical orchestral composition is combined with music from other artists, mainly from rock and pop culture.

Table 2. Other soundtracks in which Queen were involved.

– <i>Metropolis</i> (1984). Freddie Mercury wrote the song <i>Love Kills</i>
– <i>Zabou</i> (1986). Freddie Mercury wrote the song <i>Hold On</i> for the movie
– <i>Biggles</i> (1986). John Deacon wrote the song <i>No Turning Back</i>
– <i>Time</i> (1986). Freddie Mercury wrote the song <i>Time for the Dave Clark's</i> musical
– <i>The Amazing Spider Man</i> (1994). Brian May wrote the main theme of the movie
– <i>Small Soldiers</i> (1998). A remix of the song <i>Another One Bites The Dust</i> was recorded with the rapper Wyclef Jean
– <i>Furia</i> (1999). Brian May wrote the soundtrack
– <i>A Knight's Tale</i> (2001). Queen collaborated with the songs <i>We Will Rock You</i> and <i>We Are The Champions</i> (newly recorded with Robbie Williams)

## The eYe

In 1998, Queen decided to give their music a new life bringing it to a videogame, for the project called *The eYe*. For this project the original songs of the band were newly mixed in order to better integrate with the action-adventure electronic videogame, focusing mainly on music and

disregarding the lyrics. The project includes therefore new versions of well-known songs that focus mainly on musical parts. Several instrumental details can be heard for the very first time: songs are presented to the listener in a new way allowing him or her to focus on the game without being distracted from the lyrics. But the music is not merely decorative, the connection between Queen’s music world and the game is deep. The structure of the songs themselves changed to better meet the needs of the new media: for instance, several songs can be heard in a loop. This aspect can be seen as new potential of the music that can transform itself accordingly to the final media in which it is used, becoming something that is deeply connected with a new aesthetic never seen before. This close integration is visible in the artwork, which accompanies the production of *The eYe* (Figure 8).



Figure 8. *The eYe* original artwork

The *eYe* was released by Electronic Arts on 5 discs (called *The Arena Domain*, *The Works Domain*, *The Theatre Domain*, *The Innuendo Domain* and *The Final Domain*), and featured music remixed by the producer Joshua J. Macrae at Roger Taylor’s studio in Surrey. The game is set in the future where the world is ruled by an all-seeing machine called “The eYe” which has destroyed everything that can promote creative expression (Figure 9). The player takes the role of Dubroc, a secret agent of *The eYe* who has re-discovered a database of popular rock music, and is judged and sentenced to death in “The Arena”, a live television show broadcast through satellites to the world in which the contestant battles fighting arena champions called the Watchers. From there Dubroc goes on a quest to destroy *The eYe*, a sort of Orwell’s *Big Brother*.



Figure 9. Screenshots from the game *The eYe*

Many elements of the story were adapted into the following musical *We Will Rock You*: so, we can see another clear example of how Queen’s music is shaped for different artistic productions (e.g., movies, videogames, musical).

The soundtrack, divided in five discs, for the game *The eYe* has never been officially published.

## We Will Rock You: The Musical

*We Will Rock You* (often abbreviated as WWRY) is a jukebox musical based on the songs of British rock band Queen and the book by Ben Elton. The musical narrates the story of a group of Bohemians who struggle to restore the free exchange of thought and fashion, and live music in a distant future where everyone dresses, thinks and acts the same. Musical instruments and composers are forbidden, and rock music is unknown.

The music was directed by Christopher Renshaw and choreographed by Arlene Phillips, the original West End production opened at the Dominion Theatre on 14 May 2002, with Tony Vincent, Hannah Jane Fox, Sharon D. Clarke and Kerry Ellis in principal roles. Although the musical was at first panned by the critics, it has become an audience favourite, becoming the longest-running musical at the Dominion Theatre, celebrating its tenth anniversary on 14 May 2012. The eleventh longest-running musical in West End history, the London production closed on 31 May 2014 after a final performance in which Brian May and Roger Taylor both performed. A number of international productions have since followed the original, and *We Will Rock You* has been seen worldwide. Many productions are still active.

According to Brian May, Queen's manager Jim Beach had spoken with the band about creating a jukebox musical with Queen's songs since the mid-1990s (Elton, 2004). Initially, the intent was to create a biographical story of Freddie Mercury. About this time, Robert De Niro's production company Tribeca Productions expressed interest in a Queen musical, but it found the original idea difficult to work with.

In 2000, Ben Elton was approached to start talks with May and Taylor on the project. He suggested taking the musical down a different path than initially imagined, creating an original story that would capture much of the spirit of their music. He worked closely with May and Taylor to incorporate Queen's songs into the story. Elton has also stated that he was in part inspired by the computer-controlled dystopia of the 1999 science-fiction film *The Matrix* (2004). The script was eventually completed midway through 2001. Queen's music is re-transformed again for this kind of media, the show and the story itself, including some elements taken from the game *The eYe*. In this way, the music becomes very well connected to the characters originally present in the songs: Galileo (from *Bohemian Rhapsody*), Killer Queen (from the song *Killer Queen*), the Gaga kids (*Radio Gaga*), Khashoggi (*Khashoggi's ship*) and so on. And this is a clear example of how music can reinvent and reimagine itself going beyond the domains of music genres towards a new life.

## Conclusions

In discussing several examples of the integration between music and visual media in the case of Queen, the paper aims to demonstrate how important is the aesthetic connection between music and visual worlds. Queen wrote the soundtracks of *Flash Gordon* and *Highlander* following a particular principle: they wanted to be involved in the complete process of realization. While when movie's director chooses a rock band to write a soundtrack, this collaboration is usually limited to a single track that can be heard at the end credits. But, in the case of Queen, the process is more articulated: they wrote many songs that were used during the movies, and the pieces written for the soundtrack merged with the more classic orchestral scores. The relationship of Queen with movies is far more complex and vivid than in other cases we may find in recent soundtracks. Since this music was created simultaneously with the movie and not simply added later, Queen had the possibility to follow the script and the shootings and

they were able to create a kind of coherent musical *world*. This practice gives to the whole project an internal coherence that it is still evident after many years.

More in general, one can note that throughout their long career, Queen has peculiarly worked with visual artists, being able to harmonize their music with a broad variety of media (soundtracks, musicals, videogames), and this characteristic has also enriched their iconic impact largely beyond the music world.

The impact of their iconography can therefore be traced in vinyl releases and in several other parallel projects, and this shows that a precise idea was conceived to expand the possibility of the simple music to other visual arts in a mutual exchange full of tiny details and hidden references. The media involved in this process could be a movie, a videogame or a musical, but in all these examples the deep link with the music is evident and isn't strictly limited to the field of the final product: the technical challenges are override as well, even when (as for the videogame *The eYe*) some aspects are nowadays outdated. All these relationships create an artistic aesthetics that is deeply connected both with music and visual arts, with an idea that goes beyond the material support and finally becomes art.

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# Innere Gesang: the voice as an expressive device of an inner sound, an inner song

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Bruno Pereira<sup>1</sup>

**Abstract.** I have been challenging myself to get closer to a more authentic performative expression of my vision of the *world*. The troubled times in which we live in promote the degradation of pure expressiveness and constitute a balm to prevailing expectations, making it harder to delve deeply into the essence of what is to be said. Here, I have created an experimental performance called *Innere Gesang* in which I sustain the methodological approach of my artistic research, in a spiral relationship between *doing* and *critical reflection*. I have started from the assumption that there is no performative development outside its own practice. *Innere gesang* demonstrates the deep connection within the *thought-voice-body* system and discusses the uniqueness of the voice as voice, guiding us towards an expressivity closer to the desired *inner song*. This article reinforces the relevance of this type of performative contribution in the development of the field and presents the voice as a device with great expressive potential in the aesthetic interaction within the context of contemporary performative practices.

**Keywords.** voice; improvisation; performance; *thought-voice-body* system

## Overture

In the troubled times in which we live, the society of the spectacle has been rethinking the way a performance should be presented. An important aspect of this reflection is the fundamental relationship with the audience, an entity that has been undergoing rapid change. The focus of reflection turns out to be external to the performer and, ultimately, external to his/her own artistic practice. There is a necessary concern in the way of mediating the relationship between performative action (the output of the performance) and its reception, and there seems to be an imbalance in the relationship with the seminal, pre-performative process of building a thought that sees, in the corporeal effectiveness of the performance, the possibility of building physicality from the intangibility of that thought.

Once this imbalance is speculated, and then it is important to pay attention to the less visible side of the process. It is interesting to investigate the moment of creative germination that, starting from an internal thought, builds its future *appearance* (Langer, 1976) using the *voice-body* system as a device for generating a tangible expression of that same thought, hence forming a three-part system: *thought-voice-body*<sup>3</sup>. This moment of creative genesis is a moment of great turbulence created by the tension between thinking and doing; between the greater freedom of thought and the physical limitations of the body; between silence and the

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<sup>2</sup> <https://www.youtube.com/watch?v=EYpt-5HeGVs>

<sup>3</sup> This three-part system, *thought-voice-body*, assumes that these elements are intimately linked and that they do not fully exist without any of the others. There is no body without a voice nor a voice without a body. Thought, on the other hand, cuts across any body/vocal mediation process. (Pereira, 2016: 119)



vociferation of a sound; between the non-linearity of thought and the linear constraint of the *chronos*; between the spatial immateriality of what we think and the presence of a body in space; between the search for a performative singularity and the validation of the convention. These tensions were somehow experimented in the *innere gesang* performance<sup>4</sup> created within the development of this article and the participation at the NCMM 2021, in Lisbon.

We embrace the methodological belief that it will not be possible to work outside of artistic practice itself, so we postulate the essential need to investigate starting from artistic practice and its intrinsic processes (Bailey, 1992; Ninh, 2014). In this rhizomatic movement towards a utopian territory of freedom, it is essential to know how to listen. Learning to unlearn (Pessoa, 2014) so that *my vision* of the *world* is disconnected from myself. Conceptually speaking, the subject is discarded as a form of permanent self-reinvention while one seeks to make way for the constitution of a new language that exists beyond the subject (Foucault, 2015), the performer.

In this utopian approach to the *doing* (Azevedo and Pereira, 2020), we navigate within non-idiomatic possibilities via free improvisation (or *tendentially free improvisation* as I prefer to call it) (Pereira, 2016). With this improvisation space the intention is to promote the emancipation of a vocal discourse that is organic and singular, always based on the methodological principles of qualitative research, and deeply *practice based*, and that aspires to the *democracy of experiences* and *methodological abundance*. The intention is to assert that this same performative practice will always be transformed through performative experimentation, while simultaneously strengthening the reflections that orbit it.

In approaching some of the very many questions raised in this introduction and respecting the presented methodology, I have included parts of a performative experimental session in the process of a reflection that blurs the borders between the inner drives of the thinking and the doing. I have called the excerpts of this session *innere gesang*<sup>5</sup> also blurring the same concept I use as an engine for the creative development and the performative burst of voice and body.

## Spectacularly disconnected

I started talking about the troubled times we are living in. Modernity has been leading society towards the *vita activa* overshadowing the necessary *vita contemplativa*. Life is more and more giddy and doesn't allow the duration, the *time*, needed to experience it. Time has become operative and so compressed that we have lost the possibility of experiencing it. We live in a perpetual present that doesn't accept the possibility of a real transformation. We no longer transform. We replace, consuming products one after the other. We watch a concert through our cell phone screen while recording it for a future present that will not happen as we will not watch it again after posting it in a volatile story in the social media as proof that we are having a great time, that we are socially alive. The society of the spectacle. Meanwhile we have lost the experience of the sensible. This sensible has already been replaced by a set of images of this sensible. It is the power of the icon that imposes itself, obliterating the communion of bodies, confining them. We no longer have performance, but rather an image representation of this virtualized performance. The society of the spectacle imposes a social relationship of these

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<sup>4</sup> See: <https://www.youtube.com/watch?v=EYpt-5HeGVs> (accessed on 18 April 2023). See also section 3 in which I tackle and share, even if in a conceptual way (it was the real creative process in this case), important parts of the process: the voice as voice in a pre-language characteristic (to free it from the burden of language, a place of submission); the use of improvisation and the use of extended techniques; and the deconstruction of the lyrical singing.

<sup>5</sup> The reference is to the same *youtube* link presented in the 1st footnote. The several references to *innere gesang*, within this text, also refer to this performative output, shared in the link.

bodies, mediated by images. It has all become an immense accumulation of spectacles and a “concrete fabrication of alienation”. (Debord, 2021: 18)

*The first phase of economic domination over social life led, in the definition of all human achievement, to an evident degradation of being in having. The present phase of the total occupation of social life [...] leads to a generalized slide from having to appearing (Idem: 13).*

We do have performance everywhere though. All our actions are measured in performative parameters, and we rank each other according to our performance in a specific task. How many smartphones or cars or insurances did I sell this week? Am I the employee of the month? How fast can I write a book or compose a piece for orchestra? Will I be commissioned to do it?

This is surely an unfriendly context for creation and art. Creation needs time and the possibility of repetition. Art needs relationship and experience.

As stated in the overture, this pressure has been bringing extra attention to the important moment of presenting our performative work to an audience. We have been virtualizing concerts and performances, building platforms for streaming this kind of content whenever wanted, promoting the possibility of skipping those *boring* moments of a long performance. We want action. We get impatient when time slows down. *Waiting* implies a relation with the *self* and that's uncomfortable enough to make me want to avoid it as much as I can. Nietzsche speaks about the lack of inner content to relate with during the waiting period, the will to escape and forget your own being. He claims that this content has been degraded due to the love of timeless speed, the love of wild and fast work. And he complements this by saying "if you believed more in life, you would launch yourself less in the moment" (Nietzsche cited in Han, 2016: 129).

As performers, creators, and artists, I believe we should work for our audience with deep respect and that implies sharing with them a genuine output of our inner expression. We should not try to please them or confront them, in the magic performative moment, condescendingly. The audience deserves this from us. I maintain that there is no other way of facing an audience. Honestly, boldly and recognizing our fragilities and flaws. I intend to work around the concept of permanent becoming where the audience is a real companion in the ephemeral moment of performance. This will doesn't pretend to impose itself but only work as an invitation for those willing to join the challenge and linger in their individual process of *listening*. The most interesting part of this approach is the responsibility that comes attached. The responsibility of this *place of expression* (the creative performative process) but also the responsibility of this other *place of listening* (the audience participation that includes the performer in his/her role of listener).

This said, it seems clear to me that we need to focus our attention on the turbulent moment of creative genesis, and therefore this article wants to develop some ideas around this seminal process. There will be time, in other contexts, for a deeper reflection about the contemporary challenges of sharing our work with others, ensuring that we do not get carried away by the expectation of applause and that artists do not become a balm for an accommodated audience.

## **The uniqueness of voice and the *innere gesang***

The voice is part of us. It is something unique. It would be difficult to find anything else so umbilically linked to our body and our thoughts. The voice is a mediator "not only between the subject's body and his language, but also between his voice and the voice of the other"

(Castarède, 1991: 142). The voice is the vehicle of a unique being that brings together body and thought in a single element, mediating body and language.

The voice is also the element that we all indiscriminately possess, capable of expressing a wide range of emotions and experiences. From the words of Kristin Linklater, we can conclude that working on a natural voice – a voice release more than the creation of a specific vocal technique – aims to put the “voice in direct contact with the emotional impulse, shaped by the intellect, but not inhibited by it” (Linklater, 1976: 1).

Linklater believes that this natural voice that is being sought is transparent and that it is a direct and spontaneous way of revealing the innermost part of each one of us. The voice as the revealing element of our emotions and thoughts. The voice as a basic element of the human condition that, by making itself heard, represents the person and not just the acoustic phenomenon produced by the vocal emission of that same person.

*I want to hear you, not your voice (Warren, cited in Linklater, 1976: 2).*

Calvino, in his *A King Listens*, brings forward something that might sound obvious but that is, in a specific perspective, the key to approach the uniqueness of voice. “That voice certainly comes from a person, unique, unrepeatable like every person” (Calvino, 1990: 112). I believe that the inevitability of the uniqueness of the voice should make us look at it with the responsibility that stems from this rarity.

The voice always drags behind it a *someone*. A voice always introduces a “living person” with “throat, chest, feelings” (Calvino, 1990: 113) and it’s through feeling it in the body that we experience it (Labelle, 2014). The fluids, the mucous, the muscles, the air. This voice is “different from all other voices” (Calvino, 1990: 113). In my performative case the voice challenges the listener to find a *someone* in it. It’s a possibility of seducing the auditor by taking the voice as a voice and offering it in a song, an inner song, an *innere gesang*. The performance as creation.

The voice as a voice, in a moment of pre-language, is charged by the power of sound and performance drive. The sound, the acoustical representation of the voice, carries in its waves a part of body and thought in a moment of multidimensional and pure expression. In this moment it no longer belongs to me, it already flies. Maybe it was never mine because it only *happens* when it leaves my body. It’s not mine but it exposes the depths of my body and mind. This generates an interesting paradox if we argue, as stated before, this sound is powered by the frictions of my vocal tract and the shaping of my mind. It’s my presence in the world outside of myself, exposing me, detaching myself from my own sound and allowing me the possibility, if desired, of a critical perspective on what is expressed. Simultaneously this projection of sound delivers my expression into the intimacy of the *other*, that listens. The mouth, the central interface of the body, which brings me closer to the *other* through the kiss, the murmur, the design of the sound of my voice, is a key element in putting my body in a relationship with what is around me. This interface poetically guarantees that link between the inside and the outside of the body. From this perspective we may consider that

*[...] the voice does not move away from my body, but rather it carries it forward – the voice stretches me; it drags me along, as a body bound to its politics and poetics, its accents and dialectics, its grammars, as well as its handicaps (Labelle, 2014: 5).*

It is precisely the permanent concern of hiding the voice handicaps that, in terms of contemporary artistic creation, bothers me when the voice becomes lyrical. This lyrical approach incorporates a considerable technical component which leads us to approach the voice as an object whereas I consider that, within the contemporary artistic field, it should be the

subject. Vocal lyricism, overwhelmed by centuries of opera, has been developed, according with Léothaud, in four paths: “[p]ower, the search for high notes, homogeneity and consistency or purity of vocal emission.” (Léothaud, 1996: 176)

All these parameters are essentially technical and scantily linked to content or pure and individual expressiveness. Expressiveness, in traditional opera making, is mostly built within a range of a generic, conventional, expectation. As a matter of fact, most of the vocal work in this genre is aimed at removing some of the natural characteristics of the human voice, such as the natural difference in vocal registers. The search for homogeneity intends to mask these differences by compensating natural phonation with the addition of specific resonances of chest voice, head voice or mixed voice (a mixture of chest voice and head voice) and a set of other resonators (mouth, pharynx, nose) that are part of these types of registration. In this *innere gesang* the voice intends to be as fragile as it really is, to include its noise and its flaws. The voice is subject and has something to say that goes beyond the semantics of the text that it might carry.

*[...] the voice is such a meaningful sound: even when my voice trips me up, falls short, or loses direction, such slippages also mean, if not all the more. From this view, I learn from the voice who I am precisely as it carries me, as it sounds me, as I feel it as part of my face, in my throat and mouth, and up my nose [...]*” (Labelle, 2014: 6).

These handicaps are exactly what excite me in my process of nomadic inquire. It is precisely in this fragility zone that we may transform ourselves and tease the *other* to pursue an individual path in this open territory of inner metamorphosis.

*The uniqueness of the voice and the strength of the intrinsic instability of sound is a great way to promote transformation, leading my practice to an in-between that profits from the turbulence of the boundaries between thinking and doing. It’s a risky but challenging process to work in a place “where the voice starts dancing, where the body starts singing [...]* (Monk cited in Jowitt, 1997: 2).

Improvisation was, in this performance, the chosen tool to answer this conceptual drive, as I find it, when as free as possible, inclusive and diverse in the acceptance of the so-called error.

All of the above is a part of my process of seeking authenticity in the relation with my *listener* and ultimately with myself, while bearing in mind the Foucaultian possibility of creating a language that is not spoken by anyone and in which the speaker only imposes a grammatical fold on it (Foucault, 2018), exteriorizing it, in ephemerality.

*Innere gesang* is a no-safety-net journey into this relationship between *voice-thought* and *voice-sound*. A passionate and intimate relationship between the creation and its physical build up. The journey is in search of this authentic relationship between inside and outside. We tend to focus on the relationship the audience establishes with artworks but sometimes we neglect the relationship between the performer/creator and his/her work. Penha conveys it nicely with the concept of *artship* (extrapolated from the well-known concept of friendship), which highlights this tensional relationship between oneself and the artwork.

*[...] Artists too can establish inauthentic relationships with their own artworks, if they are not earnest and candid with themselves about the reasons for their artistic decisions* (Penha, 2019: 11).

What strikes me in this sentence is the affective connection that should be promoted in our relationship with art both as critical audience and creators. I see it as this urge to advocate a deeper relationship with the artwork that is not solely aesthetical but also experiential. It’s not only external but it invades my body, my mind, and my voice in this particular case.

From the *Sprechgesang*, halfway between singing and the spoken voice, to the “fragmentation of the vocal subject” (Castarède, 1991: 200), the voice has traveled a long path of metamorphosis, struggling with its multiple function of linguistic communication and of being a privileged source of access to the primordial material of the body and of thought, of pre-articulation. Often the voice “converts itself into movements of the body, as close as possible to the unconscious”, trying to reach a regression prior to the phase of “constitution of the self” (Castarède, 1991: 200), in the expectation of being able to move in a space of expression that is tendentially free.

In this article, and specifically in its performative output, a contextually innovative stance is taken of deconstructing lyrical singing into something that is no longer lyrical singing, and which is no longer a *sprechgesang*. It takes them as a starting point but tries to free itself and look for a new *gesang*. An *innere gesang*? An internal song of the intangible characteristic of our thought, externalized by the voice and body of the performer. A *song* - as Cavarero envisions in Barthes’ work - as “a primary place of phonic and musical texture from which language grows” (Cavarero, 2004: 15).

The article and performative experimentation of *innere gesang* is, beyond the expected contribution to the performative field as a performative work, a contribution to the discussion around the potential of disrupting the logos of the voice, by assuming the voice as a voice and breaking the hegemony of speech that often relegates the sound of the voice to a place of submission. It’s about “an emancipated voice that emancipates the performer that performs to an emancipated spectator” (Rancière, 2010). It’s about learning to unlearn (Pessoa, 2014).

What I want to discuss is, as Cavarero does (Cavarero, 2005), the singularity of the voice and its relational characteristic. It is important to resolve this prejudice by expanding the ontological potential of the voice, which is much broader than the speech that often comes attached to it. It is the construction of a voice that constitutes a tensional gesture between the interior and exterior of our body, assuming a unique, expressive, and extraverbal characteristic, in contrast to the semantics imposed on it that limits its space when it becomes speech and verbal language that communicates conventionally.

In *innere gesang* I experiment around the voice as voice, the voice full of imaginary drive (Labelle, 2014), and explore sounds to bring forward the pure expressivity of the bodied voice where “the words, which are reduced to their sonorous materiality as sounds among sounds, do not count for their semantic valence but only for their phonic substance.” (Cavarero, 2005: 1)

The voice is thus deeply embedded in the body that unveils the hidden part of a person and unlocks the genuineness of the expression.

*The voice, no matter what it says, ‘inevitably communicates [...] the embodied uniqueness of one who emits it’ (Kottman in Cavarero, 2005: xv).*

The attempt to find my own singularity – by diving deeply into the above-stated connections – is somehow my way of exploring the *Grain of the voice*, the result of a full interaction between body and soul, as Barthes sustains. It is the shaping of a voice that exceeds the limits of our culture and convention and expands its space of action.

*The ‘grain’ is the body in the voice as it sings, the hand as it writes, the limb as it performs (Barthes, 1977: 188).*

More than using extended vocal techniques I’m searching for the essence of an authentic voice – without labels – and breaking the conventions when it makes sense conceptually. This authenticity, while relating with the world, implies the ability to be flexible and to interact with what surrounds me in each moment and space. This flexibility should reflect on how often I also take the sound of my voice and on how often I also take the sound of my voice as a territory

of change. What I want to say is that it is interesting, as a process, to work on the distancing of the familiarity of the sound of my own voice in order to keep it alive. Artists such as Ute Wasserman have been doing this with very interesting outcomes. Wasserman reports:

*I shift, distort and reinvent the connection between the body parts used in vocal production. [...] My performances redefine in different ways the threshold at which the voice makes contact with the outside world. The boundary between self and environment is differently redrawn each time (Wasserman cited in Bosma, 2016: 15).*

We thus point to an approach that intends to be permanently transforming itself, i.e., an innovative and unconventional state of becoming<sup>6</sup> that makes us reflect, ponder and act, aiming towards an aesthetic non-crystallization of feeling and fruition. An approach that doesn't limit us in the moment of creation and in the moment of giving physicality to our intangible thoughts. Or, if we like, an approach that doesn't limit us in the moment of making the invisible visible.

This search for a freer space of creation ends up by determining the natural and organic use of improvisation, a fundamental tool in the transformation of creative material in the course of linear chronological time.<sup>7</sup>

As in the theatre, Linklater argues that a perfect communication of the actor implies a balance between intellect and emotion and between body and voice; and in this balance no element can compensate for its absence or for the weakness of any other element (Linklater, 1976). This fundamental balance between the intellect and emotion/body and voice also represents a paradigm shift in the perception of our voice, making it more relevant to understand how the *voice feels* rather than how the *voice sounds* (Pereira, 2016).

Focusing on the *tendentially free* (vocal) *improvisation*, we can consider that, to a large extent, the primary objective of the search for a natural voice is the individual's liberation through his/her voice. Naturally, this relationship is circular, for once the individual becomes freer, they also become more original and imaginative, without so many filters, which in turn will lead to a vocal exteriorization that develops in a territory with greater possibilities of meaning, which again will lead us to a deeper layer of emotional expression, and so on.

Slowly, this relationship between voice and body becomes more obvious and that is why I emphasize it again and again, so that its relevance is clearly highlighted. This leads to an inevitable new use of the voice in order to say what has not yet been said. To the question of how to do it, how to put the voice to new use, Linklater answers: "taking possession of the body and moving it in a new direction that breaks habitual and conditioned movements." (Linklater, 1976: 4)

Optimizing the relationship between body and voice or between voice and body is essential for us performers to find organic, spontaneous and transparent communication. On this point Merleau-Ponty evokes Malraux's interesting vision:

*I am a sound being, but my vibration, it is from within that I hear it; as Malraux said, I hear myself in my throat. And with this, he also said, I am incomparable, my voice is linked to the mass of my life like no other voice (Merleau-Ponty, 2007: 140).*

It is necessary to ensure that performers increasingly feel this umbilical connection between the voice, "connected to the mass of life" and the body, "as a pure object" of understanding "of our

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<sup>6</sup> The nomadism here appeared as an entity that is never fixed and is in a permanent state of becoming. I've changed the word.

<sup>7</sup> We must be aware that the uncomfortable confrontation between space of freedom vs determination will always end up limiting us.

living link with nature"(Idem: 37) and, with this as an additional tool, find their own singularity in the individual expression of their vision of the *world*.

## Finale (as a New Overture)

*A great work of art is never simply (or even mainly) a vehicle of ideas or moral sentiments. It is, first of all, an object modifying our consciousness and sensibility, changing the composition, however slightly, of the humus that nourishes all specific ideas and sentiments (Sontag, 1966: 300).*

*Innere gesang* is part of my process of addressing, performatively, my wish to have a deeper focus on the expressive creative process and its output instead of adhering to characteristics established by the vertigo of the society of the spectacle. In the last few years one of my main challenges has been to resist the call of applause, the superficiality of established expectations. The temptation to please the audience and to please the performer's ego somehow blurs the essence of what is to be said and pushes us away from the singularities that bring originality and authenticity to a piece of work. "In place of a hermeneutics we need an erotics of art." (Sontag, 1966: 14). It is the possibility of creating this tension between the creative, the performative and the moments of fruition; this eroticism that suspends us in the intangible opacity of art and not in its dissection; this dance of the voice and of the body, this excitement when creating visibility of thought in time and space. This moment when the performer, with a physical and sonic *gesture* that translates a thought, creates an interference in my sensibility that moves me as performer *creator* and performer *receiver*. This is my process of respect and honesty towards the public that shares with me the same, ephemeral, moment. I believe that this will be the way to promote the emancipation of each element of the audience, each one belonging to the construction of their own reading of what takes place.

For this work I found in *tendentially free vocal improvisation* the best context to search for that freedom of expression, away from the idiomatic constraints that frame my creative possibilities and closer to a more inclusive territory for sounds. It also resonates with me as the most flexible approach to an experimental environment more agile in the power of a founding transformation, allowing a richer interaction between the referred system *though-voice-body*. This freedom also brings responsibility: responsibility in managing the place of sound and the place of listening, and in charging the performance with a deeper relationship with the world around us. Responsibility in maintaining an authentic drive throughout the process, in relation to the self and the other.

*Innere gesang* intends to be my humble contribution to keeping the contemporary performative world "on the boil", promoting performance as creation. It intends to be a statement, simultaneously a belief, that it is only through performative actions, the *doing*, that we can keep the inherent nomadic characteristics of performance in contemporaneity.

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# Elena Mendoza and Matthias Rebstock's *La ciudad de las mentiras*: Composed Theatre in the Plural

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Carmen Noheda<sup>1</sup>

**Abstract.** This study discusses the creative process of *La ciudad de las mentiras* (*City of Lies*), music theatre co-authored by the composer Elena Mendoza and the stage director Matthias Rebstock. *City of Lies* was premiered at the Teatro Real in Madrid in 2017. I aim to examine the multidisciplinary collaboration and the devising practices that involve performance as creation when female instrumentalists in the main roles and an ensemble on the stage together with actors and singers leading both the dramatic and musical actions. This approach reflects on a precise set design that entails non-hierarchical performances and improvisation scenes. My proposal addresses the diversity of working methods and highlights aspects related to the production systems of opera houses that condition the authors' conception of music theatre. Therefore, I address both performative and creative processes and production conditions that challenge music theatre creation in the current context of the Teatro Real.

**Keynotes.** Composed theatre; Music theatre; Improvisation; Compositional methods

Elena Mendoza and Matthias Rebstock's *La ciudad de las mentiras* (*City of Lies*, 2017) was the first music theatre premiered at the Teatro Real in its 200-year history.<sup>2</sup> Before delving into the hermeticism and solitude in *City of Lies*, I underline the singular and close collaboration between Mendoza and Rebstock in a permanently open compositional process that relies on experimentation and improvisation. Their work as a team disrupts any one-sidedness to explore the dynamic interactions between disciplines from the beginning to the end of the creative process. Over the course of a decade, their co-authorship has so far enriched the creation of four music theatre works: besides *City of Lies*, *Ich bin Du oder der Raub der Futurina* (Oper Nürnberg, 2002), *Niebla* (Teatros del Canal, 2009) y *Der Fall Babel* (Schwetzinger SWR Festspiele, 2019). Focusing on its creative process, *City of Lies* favors the discussion by confronting opera to music theatre. Coincidentally, this idea articulated the program notes that Mendoza and Rebstock drafted entitled "Composing opera today" (Engel, 2011: 14-15), in which they pointed to the reconsideration of the operatic genre. The text started like this: "Composing an opera today means to some extent reinventing it as a genre" (Mendoza and Rebstock, 2017: 14). For the first time, *City of Lies* introduced in the Teatro Real a co-authorship work from an artistic team to experiment with the creative possibilities of its members until the live performance. This perspective aims to make visible the diversity of working methods in opera creation with particular attention to the performance and aspects of production systems, highly dependent on the opera house that carries out the commission.

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<sup>2</sup> This research has been developed further in Noheda (2021).

This divergence directs me to concentrate on the element that set up the *City of Lies*' conception: exploring narrative procedures. Mendoza and Rebstock intersperse four stories by the Uruguayan writer Juan Carlos Onetti (1909-1994) from constructing a structure that seeks multidisciplinary balance, whose proposal reveals a technical peculiarity: the inquiry into the polyphonic compositional principle. Mendoza investigates the concept of polyphony both in the equality of the constituent elements and integrating musical and dramaturgical actions based on their simultaneity and independence, without being limited to the plot's conduction through the voices. I found the best synthesis in the next statement published in the opera house's magazine, *Revista del Real*: "*City of Lies* manages to turn the concept of traditional opera upside down" (Torrente, 2017: 15).

How this act of "composing opera today" is part of the operatic genre's liminal exchanges leads me to place the creative process of *City of Lies* as an object of discussion. This research emphasizes its potential to subvert the validity of the sequential production systems that found a historical place in the leading institution of the performing arts in Spain: its main national opera house, the Teatro Real. At that time, its artistic director, Gerard Mortier, was devoted to opera creation in Spanish during his tenure. After the commission to Elena Mendoza in 2010, the composer selected four stories by Juan Carlos Onetti, all of them starring women: *Un sueño realizado* (*A Dream Come True*) (1941), *El álbum* (*The Album*) (1953), *La novia robada* (*The Stolen Bride*) (1986), and *El infierno tan temido* (*Hell Most Feared*) (1962). The music theatre overlaps its plotlines while emphasizing the four women's distorted existence, who hide in fiction to free themselves from a shared reality corrupted by the male residents and the imaginary town of Santa María itself, where the story takes place.

This study attends to the expansion of the expressive means proposed by Mendoza and Rebstock according to the conjunction between compositional methods and the spontaneity that emanates from performance, which becomes one of the foundations of devising creation in *City of Lies*. In this field, it necessary to recall the theoretical reflections of the co-author of *City of Lies*, Matthias Rebstock. The stage director has contributed to music theatre research through two monographic works: the first with David Roesner at *Composed Theatre: Aesthetics, Practices, Processes* (2012); and the second, in the chapter "Varieties of Independent Music Theatre in Europe" (2017). Therefore, the publications above form the starting point from which to analyze the nexus between stage and musical actions in *City of Lies*. Thus, this section addresses both performative issues, the creative process and production conditions that place in the foreground the de-hierarchization of the constituent elements of the work. Both perspectives aim to redefine the operatic production based on the conventional creative sequence of libretto-score-staging, the latter, and the configuration of the cast, dependent in most cases on the opera house itself. Instead, Mendoza and Rebstock's proposal deconstructs this system to provide an artistic team whose members interact in the creative process from the beginning to the end.

Mendoza and Rebstock assembled an artistic team, which included the set designer Bettina Meyer, the costume designer Urs Schönebaum, Titus Engel as the conductor, and an ensemble that was distributed in three different locations in the Teatro Real's main hall: eleven soloists in the pit ensemble, seven in the Royal box and six on stage, where they interact with singers and actors.<sup>3</sup> In the program notes, Elena Mendoza and Matthias Rebstock defended the belief in the collective creation. Such conception connected with the confluence of compositional and improvisational methods to articulate the work from their interrelation.

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<sup>3</sup> In addition to the four main roles (two sopranos, accordionist, and violist), tenor, baritone, and two actors, the instrumentation is set out as follows: ensemble on stage: clarinet, tenor saxophone, trombone, violin and cello; Pit ensemble: 1.0.2.0 - 0.0.1.0 - 2Perc. - Pf. - 1.1.1.1.1.; ensemble in the Royal box: 0.0.1.0. - 1.0.1.0. - 1 Ac. - 1 Sax. (si b) - 1.1.0.0.

The collaborative conception of artistic practice that refers to devising theatre also appealed to Rebstock with Roesner in applying the concept to music theatre as “Composed Theatre” (Rebstock, 2012: 22). To give an account of the relationship with the creative process of *City of Lies*, I refer to the words of Elena Mendoza, who explained to the Teatro Real what her compositional strategy consisted of:

*The basis of our work is a common ideal of music theatre in which the different elements that come together on stage [...] did not perceive in isolation but as a whole, as an organic mechanism in which music becomes theatre and theatre in music. For this, we create the text, the music, and the stage in parallel, sharing the authorship of the entire process, and not in successive steps as occurred in the traditional method. We also look for the set designer, the costume designer, and the interpreters very early on [...], and we do experimentation sessions with them almost from the beginning of the composition (Torrente, 2017: 15).<sup>4</sup>*

These experimental sessions blur the boundaries between creators and performers in favor of the dialogue and dynamic encounters that combine improvisation with the configuration of sketches from which the creative decisions discussed in common emerge. At a later stage, these are specified in more autonomous phases of work that include overlapping methods. These artistic practices move away from a libretto and a score fixed apart from the scenic and performative proposals. In this respect, Rebstock posed the scene as a precondition from the beginning, which adopts a multidisciplinary balance from a genetic perspective. In addition to giving prominence to visual, spatial, physical, or performative aspects, this fact ratifies one of the main reasons for composed theatre: a more democratic approach to creation (Oddey, 1994: 8-11).

In this regard, the only existing publication signed again by Rebstock in “On the Aesthetics and Working Process of Elena Mendoza’s Music Theatre” (2019) is illuminating. This text reveals the combination of traditional composition methods and experimentation from the collaboration in the composer’s creative process, procedures close to the fields of contemporary dance and theatre. Rebstock’s approach as co-author responds to the collective as creative principle of *City of Lies*. This perspective allows me to discuss both performance and the concept of authorship. Thus, Elena Mendoza points out the very long-term planning of creation, a temporality that collided with opera houses’ production systems such as the Teatro Real. It is not usual to propose, as the composer specifies, pre-rehearsal phases.<sup>5</sup> This working method differs from the rehearsals of a finished creation. In this case, the opposite happens; the rehearsal is part of the creative process to compose *in situ*. Mendoza admits that these first pre-rehearsals were produced in 2012 for a premiere scheduled in the 2014/15 season. However, Teatro Real took a new turn after Mortier’s death in 2014, and they decided to delay the *City of Lies*’ premiere for two seasons, adding uncertainty to the artistic team’s permanence and the cast involved in the creation process.

Simultaneously, the set design provides cohesion by fixing a single space, which consists of several platforms connected by stairs where parallel actions occur around a central location, the bar. This design intended to visually fill the scene in the same way as the different sound planes

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<sup>4</sup> “La base de nuestro trabajo es un ideal común de teatro musical en el que los distintos elementos que confluyen en el escenario [...] no se perciban de manera aislada sino como un todo, como un mecanismo orgánico en el que la música pase a ser teatro y el teatro música. Para esto creamos el texto, la música y la puesta en escena en paralelo, compartiendo la autoría de todo el proceso, y no en pasos sucesivos como ocurría en el método tradicional. También buscamos desde muy pronto a la escenógrafa, a la figurinista y a los intérpretes [...] y hacemos con ellos sesiones de experimentación casi desde el principio de la composición.” Translation by the author.

<sup>5</sup> Interview with Elena Mendoza (June 2020).

did acoustically, especially from the lighting, foregrounding a concrete stage event while other parallel stories keep in darkness. Mendoza alluded to the scenography approach as a reflection of a permanently populated town that materializes a polyphonic space.<sup>6</sup>



Figure 1. *City of Lies*. Scene 1. "Hell Most Feared." Photography by Javier del Real. Madrid: Teatro Real (2017).

In the same way that the coexistence of several scenic spaces favors the intercalations of the four plot lines, the musical treatment pursues a similar narrative intention through their differentiation. The main plot starts from *A Dream Come True*, a story that serves as a framework to develop the other three: Mr. Langman, a ruined theatre director, hires the inhabitants of Santa María to stage the dream of an unnamed woman. Her dream, where she dies, will be performed at the end of the play and catalyzes all the stories. Thus, *The Stolen Bride*, *The Album*, and *Hell Most Feared* run simultaneously and, as in *A Dream Come True*, have a woman as the protagonist. Each of these four stories presents its specific sound materials, besides two soloists perform the leading role in *The Stolen Bride* and *The Album*: Moncha, with the viola, and Carmen, with the accordion. Both instruments become sound objects whose musical articulation mixed with the expression of their performers' spoken language. Accounting for the sonority of these diverse stories, I refer to the following descriptive-analytical comments by Jens Schubbe included in the program notes:

*If the percussive and metric character dominates in The Album, The Stolen Bride's fundamental element is the contrast between a morbid sound, which often turns into amorphous noise, in Dr. Díaz Grey's funeral speeches, and the stratospheric sounds of the Moncha's viola. A Dream Come True corresponds to a delicate and chamber filigree on the wind instruments, perhaps echoing what some dreams [...] can be touching for those who dream them. On the contrary, Hell Most Feared assigned dramatic sounds in tutti and some very plastic motivic ideas that are recognizable and thus give the whole work a unitary framework, which is further reinforced thanks to its early exposure to the introduction of the play (Schubbe, 2017: 19).*

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<sup>6</sup> Idem.

Therefore, each story corresponds to a precise instrumentation and stage space, whose timbral distinction diluted in the tangles that spread in the bar. This central scene is staged by the men of Santa María, performers who, like Moncha and Carmen, play and interact through dialogue, their gestures, and movements. Moreover, this ensemble on stage underlines the coincidence of the simultaneous sound layers already mentioned in the pit and the Royal box's ensembles. On the premiere, Mendoza revealed in an interview how the experimentation with the Teatro Real's main hall accentuated concrete meanings:

*The Royal box itself seems like a stage. A stage that looks at another location [...] contributes to creating an enveloping sound atmosphere for the audience, which serves very well to convey the oppressive character of Santa María, a town closed in on itself, with a conformist society, of which it is difficult to escape. Indeed, that box operates as a window, an escape route for the different characters. It is like the river, an element so present in Onetti, as the only way out (Ojeda, 2017).<sup>7</sup>*

The spatialization of *City of Lies* extends to the use of projections that intrinsically affect its narrative structure. This visual strategy articulates the beginning and the end of the music theatre around *The Stolen Bride*. Thus, this particular projection glimpses in its first paragraph the whole context of the story: “Nothing was happening in Santa María. It was in autumn. Barely the shining sweetness of a dying, sporadic sun, slowly going out. For the full range of Santa María residents who looked heavenwards and earthwards before accepting the proper absurdity of work” (Mendoza, 2017: 9). While the rest of the stories barely mention Santa María, Onetti starts *The Stolen Bride* by linking both motives: “Nothing was happening in Santa María that autumn until the time came –why cursed or missing or determined and inescapable– until the happy hour of the lie and the yellow insinuated itself in the edges of the Venetian laces” (Onetti, 1999: 1008).

If these simultaneous scenes show dramatic actions narratively linked to musical actions, the attention to the performers' creativity is no less recognizable in the scenes with the improvisation rules. Until Scene 13 (Figure 2 below), each instrumental line's materials were fixed, but this scene manifests how *City of Lies*' creative process has its fundamental reason in the performative act itself. Unlike the rest of the work, Scene 13 only presents a text, which indicates the dramatic action, the characters who take part in it, and the fragment that one of the Santa María's residents –Tito, the waiter– must recite. These instructions articulate an extreme way to expose the different degrees of fixation of the work, a procedure that contrasts elements, as I have mentioned, absolutely determined against those that obtain their final form in the performance, that is, during the rehearsals. It is here where the creative process acquires importance when experimenting with the proposals that are brought about as a team until the definitive version is offered in the representation.<sup>8</sup> Therefore, the result is not a live improvisation as such, but rather a performance of the decisions, not determined in the score, that have arisen from the collective improvisation inside the different experimental sessions.

This final configuration comes in Scene 13 from the main character's corporeality. In this case, the men of Santa María –the trombonist, violinist, cellist, and pianist–, try to capture Tito's movements –the waiter, a percussionist–, when he was serving the dinner to Moncha, who in her fiction invites her viola-lover on a date at the bar. Accomplices of the Moncha's lie, this

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<sup>7</sup> “El palco Real en sí mismo parece un escenario. Un escenario que mira a otro escenario [...] contribuye a crear una atmósfera envolvente para el público, que sirve muy bien para transmitir el carácter opresivo de Santa María, una ciudad encerrada a sí misma, con una sociedad conformista, de la que es difícil escapar. Aunque ese palco, para los protagonistas, opera como una especie de ventana, una posibilidad de fuga. Es como el río, un elemento tan presente en Onetti, como único camino hacia el exterior.” Translation by the author.

<sup>8</sup> Interview with Elena Mendoza (June 2020).

ensemble rhythmically synchronizes the dramatic action with the instrumental sound. Elena Mendoza declared how trying to compose this scene frustrated its immediacy. The composer explained the efficiency that this scene gained by creating itself *in situ* so that when looking at the waiter, the ensemble directly performs his gestures without any other guide. They tried different gestures and movements in the rehearsal until they found the sounds that fit them better. Simultaneously, the percussionist who played Tito's role improvises with diverse sound objects, such as the bottle of wine, the cutlery, the crockery, the tray, or the tablecloth, to which he gave them a dramaturgical meaning.

Regardless of the contrast between the fixed and improvised scenes, Mendoza explained how her interest lay in their relationship. Although the sound synchronized with the movement is not determined in the score, Mendoza establishes the reference material on which the performers should improvise, specifically from bars 262–279 of Scene 5. Thus, the same material adopts completely different sound results depending on the freedom of the performers to recreate it, according to the rehearsals' agreements. Hence, the final improvisation is not entirely split from the score, even though only a brief textual script appears.



Figure 2. *City of Lies*. Scene 13. "Improvisation." Photography by Javier del Real. Madrid: Teatro Real (2017).

Scene 14 sheds light on this point when Moncha leaves the bar after dinner. The ensemble on the stage improvises a gossip scene from materials fixed in modules that they arrange freely to evoke a continuous murmur.<sup>9</sup> The string players speak directly while playing, whereas the winds speak within their instrument.

The men of Santa María take up the mourning's image around the piano and narrate together with Dr. Díaz Grey the fate of her tragedy: the death of both Marcos Bergner and the priest who was going to marry them. Outside the scene, Moncha, who has already lost a large part of her wedding dress, imitates the piano improvisation based on the interval relations described above while the men of Santa María speculate about her existence at her piano-coffin. This random exchange of gossip that had accompanied Moncha's exit culminates in a free improvisation of all the men on the stage with superballs inside the piano. Like Onetti's epistle, this image refers

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<sup>9</sup> Text from *The Stolen Bride* improvised by the men of Santa María: "All things are like this and not otherwise; although it is possible to shuffle four times thirteen after they occurred, and they are irremediable." ["Todas las cosas son así y no de otro modo; aunque sea posible barajar cuatro veces trece después que ocurrieron y son irremediables."] Translation by the author (Onetti, 1999: 338).

to the dialogue with what remains from the protagonist's echoing voice already absent. This disfigured narrative of Moncha's identity, deprived of her own story, becomes permeable both dramaturgically and musically to the rest of the stories in the last Scene 15, "Finale." The end of *A Dream Come True* constitutes the structural framework in which an unnamed woman's dream is staged. This final contributes to a dramaturgical cohesion that superimposes all the stories' end as parts of that same dream. If the precedent scenes had partially exposed the instrumentation, this scene brings together the pit and the Royal box ensembles. The textual accumulation of recurring phrases from each story, which circulate indistinctly through all the characters' voices, are interspersed with sound materials from Scene 1, "Hell Most Feared 1" (see Figure 1). Nonetheless, Scene 1 presented both the ensemble on stage and the bar's murmur, which defines the profile of the improvisation scenes throughout the work. This "Finale" can be considered the maximum exponent of the polyphonic concept in *City of Lies* by dissolving all the plot threads in a textual, musical, visual, and spatial polyphony, that is, composed theatre.

The dramatic form interactions with vocal and instrumental writing emphasize how *City of Lies* is reoriented towards other less predictable elements, such as costumes, light, space, or stage movement. This interrelationship shows a de-hierarchization of dramaturgies in favor of a composition that focuses on expressing musical actions and actions with music. Hence, this linkage unveils how the visual becomes a source to generate associations that impact the musical formalization itself. It is precisely the suppression of the distances between the different disciplines from the creative process that reverses the possibility of questioning the conventions of the lyrical creation and the one-dimensionality of their productive systems. If visual dramaturgy constitutes an evident nucleus in the conception of *City of Lies*, its working methods, in which composition is fused with writing, debate, research, or design, involves discussing both the interaction and the limits of two artistic practices: creation and performance. Instead of being understood as stable categories in Mendoza and Rebstock's music theatre, creation and performance are focal points for experimentation to redefine their concepts and aspects related to authorship.

This inquiry is blurred in the different phases of rehearsals according to the artists' ideas and the stage and movement trials that define the final fixed and unfixed materials. The opportunity to decide the combination of the pre-set materials in the score does not encompass a live improvisation. Instead, the improvisation itself serves as a tool for experimentation and creation. This practice directly impacts the composition methods, mostly on the stage itself. Thus, I found that *City of Lies* pursues a total integration of each of its elements and thus avoids the traditional method in operatic composition that usually opts for the addition of disciplines in separate temporal stages – normally first the libretto, then the composition and finally the staging. The collaboration between Mendoza and Rebstock begins with the creation of a libretto together, where they exchange impressions of each of the musical ideas and, finally, both are involved in the co-direction of the stage. Their working method thus follows an inclusive creative process, which considers the performers, the creative possibilities that rehearsals and joint live experimentation offer. It is precisely the conception that Mendoza has defended in many interviews: "for music theatre to be alive there has to be a real interaction between the different elements that make it up [...] I want everything to react to everything" (Sans Arcílagos & Martín-Maestro Verbo, 2018: 18-19).<sup>10</sup> Meanwhile, to premiere a music theatre work in which challenges arise during the production phases, the use of the stage space is expanded, and where singers, actors and performers interact on stage through improvisation processes is an invitation for opera houses like the Teatro Real to become involved. As opera institutions, it is a necessary

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<sup>10</sup> "Para que el teatro musical esté vivo tiene que haber una interacción real entre los distintos elementos que lo componen [...] Quiero que todo reaccione a todo." Translation by the author.

risk they must take towards other forms of music storytelling than the traditional operatic repertoire. Therefore, this performative potential compromises the artistic daily life of the opera houses, for which it is problematic to articulate such a strongly determined team and conceive rehearsal phases to create in advance, a condition that is frequently beyond their timing, both in time and budget.<sup>11</sup> Hence, the set design that is not exposed until the final rehearsals break the balance of a productive approach that integrates it from the beginning of the creative process as a primary element that determines the artistic result of the others. Accordingly, some of the criteria that govern the composed theatre expose elements that are far from mere addition and the dramaturgical condition under generally sequential principles determined by singing; this attention to the performance itself and its possibilities as a dramatic action provides new readings of operatic creation. Thus, the creative reflection of the hall acoustics, the visual associations, or the search for sounds that consider the kinetic rhythms and the spoken language expand the expressive means by entering those stories falsified by the narration's memory of the lonely men of Santa María.

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<sup>11</sup> Interview with Elena Mendoza (June 2020).



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# The voice as creation – *Pre-Voice* and *Vocal Theatre*

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Sara Belo<sup>12</sup>

**Abstract.** What is left of the voice in the scene when it is not based on verbal or musical language, that is, when these structures are not its main driver? In other words, what can a performer vocalize on stage if we suppress words and singing (in its tonal logic)? In this article, some of the results of the doctoral research will be shared, where the theme of voice as a driver of creation was essential. To that extent, we sought to study how the voice can be the conductor of scenic creation, leaving out vocal experimentalism that does not include the scene, theatricality. Following the work, the concepts of “Pre-Voice” and “Vocal *Theatre*” were proposed, the scope of which will be explained in this article, with particular focus on the latter. The concept of “Vocal *Theatre*”, which I define as a type of theatre performance of a post-dramatic nature, pertaining to its fragmented, non-narrative and multidisciplinary character, whose driving creative force is the voice and the exploration of its multiple facets and which maintains interdependence with theatricality and dialogue with other artistic fields, will be detailed (its antecedents, implications, and close nomenclature). The voice, ontological mark of the singularity of the vocal artist is, in this context, embodied and becomes part of the performer’s artistic positioning.

**Keywords.** Voice and Pre-voice; Vocal *Theatre*; Post-dramatic; Composed theatre; Postopera.

## Introduction

In this article, some of the results of the doctoral research will be shared, where the theme of voice as a driver of creation was essential. In the Ph.D. defended in March of 2020, I sought to study how the voice can be the conductor of scenic creation, leaving out vocal experimentalism that does not include the scene, theatricality. The doctoral work project emerged from a vocal, theatrical, musical and pedagogical practice, in which the voice became the centre wherein these fields would intersect. Hence it is split into two objects: an artistic one, in the creation of the show *MAGMA*, and a written one, in the elaboration of the thesis. Following the work, the concepts of “Pre-Voice” and “Vocal Theatre” were proposed, whose scope will be explained ahead, with particular focus on the latter. These concepts relate deeply to an artistic and pedagogical vocal practice that I have come to develop over several years, not only as an artist, but also as a voice professor at the *Escola Superior de Teatro e Cinema* (Higher Education School of Drama and Film), where I have lectured since 2004.

From this practice, from my work as an actress, as a singer, as a vocal experimentalist and as a voice teacher, the initial question of this work emerged: What is left of the voice in the scene when it is not based on verbal or musical language, that is, when these structures are not its main driver? In other words: What can a performer vocalize on stage if we suppress words and singing (in its tonal logic)?

In the search for answers to the initial question, I reflected on what lies before the voice and drives its emission. The concept of *Pre-Voice*, as a result of the original study for this research, seeks to find the ontological genesis of the voice, in what precedes it and drives its emission. It relates to specific concepts, namely that of “pre-pictorial” developed by Deleuze (2011), of “pre-individual” by Simondon (2005), and of “pre-expressive” by Barba (1994), as well as the

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idea of suspension defended by Merleau-Ponty (1945). It can be defined as everything that is in power (inside and outside the expresser) before the voice emerges and that will condition its appearance. The *Pre-Voice* is the gesture, the moment that precedes the vocal emanation, therefore, it is the silence or the inspiration, where the entire body of the performer empties itself of references or suspends them to surrender to vocal gesture. Therefore, the *Pre-Voice* is not the voice, but what precedes it: a silence imbued in sense –it is power and sense. *Pre-Voice* does not exist as a sound or voice, as a sound materiality, though it does reveal itself, partially, in the voice.

Regarding the first concept, pre-pictorial, Deleuze advocates that the canvas is filled with everything that the painter has in their head, around them or in their studio before they begin to paint and of which an emptying must necessarily occur. Simondon returns to a pre-Socratic conception and regards pre-individuality as that which a human being carries within them that is indeterminate (*apeiron*) and irresolute and is connected to nature (in the sense of what can come to be); essentially, that which is common to all human beings and that precedes their individualization, involving both physical and biological aspects as well as psychic and social ones. The notion of pre-expressive, which is enshrined in the principles of theatre anthropology inaugurated by Barba, is held as a basic level of the actor/dancer's presence, a living scenic energy, independent of their technique, and which attracts the spectator's attention, differing from the one they would obtain in everyday life.

The concept of *Pre-Voice* has an implication on artistic practice and can have a methodology, that is to say, we can find more direct forms to prompt a vocalicity that better translates vocal power and sense. If, for example, a singer performs a baroque aria, or an actor an excerpt of a Shakespearean text, it is indisputable that we can deduce those aspects we referred in the definition of *Pre-Voice* and it is evident that everything that precedes the act of vocal emission will influence it, but there is an object that is superimposed on the voice and makes it subservient, let us say – the text, the staging, the music, the musical direction – theatrical and musical tradition are placed at the fore. The voice is the “remainder” or the “leftover”, as said by Cavarero (2005). Logocentrism and melocentrism leads the voice to become a means, as is currently referred. The artistic exploration of the possibilities of the voice *per se* continues to be an eccentricity, even if there are many authors, such as the already mentioned Adriana Cavarero, who signal a vocal duplicity (i.e., a dichotomy contained in vocal emission resulting in a plurality of information that the voice carries beyond the discourse or the melody that it proffers) and despite fundamental works such as those of Cathy Berberian, Alfred Wolfsohn, Roy Hart, Meredith Monk, Enrique Pardo, Linda Wise and Fátima Miranda.

It is precisely through the analysis of the works of these creators that I propose the concept of *Vocal Theatre*, a term that will be developed in this article in particular depth, given that the concept of *Pre-Voice* has been addressed in other articles (Quaresma, 2021). Subsequently we will dissect the antecedents of this term, its ideological implications and close nomenclature.

### ***Vocal Theatre* - contemporary music as driver of a new vocalicity**

To consider the hypothesis of the voice as driver of the scene, that is to say, that the scene can have a vocal logic and not a narrative or logocentric one, but instead a performative one, is surely the result of a long, intricate and multidisciplinary journey that the arts of the Western world have traversed since the beginning of the 20<sup>th</sup> century. Evolutions in the fields of philosophy, literature and fine arts have had an impact on the way that voice has positioned itself in art. Artistic movements that broke away from traditional conventions, such as cubism,

futurism, dadaism and surrealism, emerged, provoking an effervescent turbulence in music, and consequently in voice, but then also, a few decades later, in dance and theatre (Lehmann, 2017).

However, contemporary music had a preponderant role in the emergence of a new vocality. In one of the bloodiest, but also most innovative centuries in terms of what was achieved technologically and scientifically, a great change is witnessed also at the level of erudite music and composition. Tired of the romanticism and sentimentalism of 19<sup>th</sup> century music, composers search within the fragmentation and deconstruction of former paradigms in composition for the innovations that they consider necessary for the new times (Aranda, 1996).

Even though composers began this search mainly in instrumentation, it is the voice that will become one of the principal agents for transformation of paradigms in the scope of said contemporary music. The voice quickly becomes an incessant source of inspiration, since its implications are diverse, in its relationship with the body, with words, with technical refinement or with a regression to archaic practices. Simultaneously its maximum relationship with the body is searched for and, at the same time, its distancing (through the machine, synthesizers). In its relationship with words, a variety of possibilities are also found: firstly, through approximating singing to speaking in the techniques of *Sprechgesang* e *Sprechstimme* (the former more related to the operatic recitative mode of singing and the latter to speech itself), in which Schönberg was one of the most striking with his work *Pierrot Lunaire* (premiered in 1912). Equally, composers such as Debussy, Ravel or Messiaen found in word or in text a model for the production of vocal sounds, oftentimes deconstructing their narrative or semantic sense.

The Italian composers Luigi Nono, Luciano Berio and Sylvano Bussotti, but also György Ligeti, give the voice pride of place in their musical production, exploring its diversity as much as possible: using not only phonetic sounds, but also mouth sounds, laughter, sighs, etc. Of course, this exploration was assisted by the singers who collaborated with them, particularly Cathy Berberian, whose co-authorship of this facet of vocal exploration is claimed today. (Karantonis, 2014).

In this quest for the limits of the voice, in the analysis of its *wastes*, its theatricality, in the practice of improvisation, in a return to techniques previously viewed as popular, we find a credible context within contemporary music in which all this was able to occur with seriousness, that is to say, despite perhaps being considered an eccentric practice by the general public it was, simultaneously, viewed as being a part of a consistent and innovative artistic project that was connected to other artistic movements, namely in painting and fine arts.<sup>13</sup> The production of contemporary music opened a space for voice, contextualizing its multiplicity and it is, perhaps, the only art that truly and profoundly gave a protagonism and a dignity to its bizarreness or eccentricity, which the other arts only managed timidly or with difficulty.

### ***Vocal Theatre* - performance art, post-dramatic**

However, to understand the concept of *Vocal Theatre* and to put forward the hypothesis (both practical and theoretical) of the voice as driver of scenic construction, it is essential to understand the scene in actuality. There are two concepts that to me seem inescapable when talking about the contemporary scene and theatre: performance and post-dramatic theatre. The perspective of the works of Roselee Goldberg, in performance, and of Hans-Thies Lehmann, in

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<sup>13</sup> Impressionism and expressionism in painting are often linked with composers such Ravel and Debussy, for impressionism and Schönberg for the expressionism.

post-dramatic theatre, provide us with a precious and striking starting point in the theorization of these terms.

Although Goldberg considers that performance art was only recognised as an artistic expression in the 70s of the 20<sup>th</sup> century, it was born at the beginning of the 20<sup>th</sup> century and by the mid-20<sup>th</sup> century it had already proliferated in several geographic locations in Europe and the United States of America (Goldberg, 2012). The ideological and artistic rooting was initially filiated more in fine arts than any other art, since many of its manifestations occurred in galleries and museums. This origin is attributed as a consequence of the previously referred artistic movements from the start of that century.

In the case of post-dramatic theatre, a term coined by Lehmann from what he considered to be a new form of theatre, it was born later on, having more clearly begun its first manifestations in the 70s of the 20<sup>th</sup> century, in central Europe, with an emphasis on Germany, and its ideological and artistic filiation is more connected with a cleaving with traditional theatre, which presupposed a narrative form and the existence of characters, that is, a mimesis of the real. When the presuppositions of dramatic theatre connected to the creation of an illusion, of a fictitious universe or of a model of the real cease to be the regulatory principle of scenic creation, dramatic theatre loses its preponderance. However, Lehmann does not filiate this movement as stemming from the models of the historical vanguards of the start of the 20<sup>th</sup> century, though they did cause profound changes in art, given that the theatrical model for representation was only questioned in a limited way at and it was only later on that a deeper transformation became visible. (Lehmann, 2017).

Despite the affiliation of the art of performance with artistic vanguards and its distinct path, we can clearly observe an intersection with the presuppositions of post-dramatic theatre. Perhaps for that reason, both terms, in certain contexts, circulate almost as synonyms in the theatre practices of the current day.

Being that “theatre is also an art of the body, of space and of time” (Lehmann, 2017: 143), in this open, fragmented, performative aesthetic, not hierarchized in its various components, where simultaneity, overlapping, a tendency toward extremes, depsychologization and self-reflection lead to a scenic writing where centrality on the body, and consequently, on the voice, on non-logocentrism and on the musicalisation of theatre give a scenic context for a vocal creation that is multidisciplinary and multifaceted, wherein a dialogue with time, with space and with light becomes even more evident.

This is exactly why Lehmann frames the work of Meredith Monk as post-dramatic: her work is based on a series of characteristics that the author points out as post-dramatic. The musicalisation of theatre referred to by Lehmann is not about a greater inclusion of music in theatre, it’s about the absorption of musical parameters such as rhythm, sound texture, the play of the musicality of speech (with or without words), within the scenic and theatrical logic. And we can observe this characteristic in many contemporary shows, even if vocal exploration is not as central as in the case of Meredith Monk. Yet other vocal researchers, previously referred to, such as Cathy Berberian, Enrique Pardo and Fátima Miranda fit into a post-dramatic logic, one only needs to think of Berberian’s *Stripsody*, the “choreographic theatre” of Enrique or the various works by Fátima Miranda such as *Las Voces de la Voz*,<sup>14</sup> for example.

Those that are the pillars of this new theatre –the presence of the actor in the scene, the dialogue with space and time– find in voice a powerful link that can involve all these components in a lived relationship with the spectator. The vocal presence of the actor in the scene finds in voice

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<sup>14</sup>This work can be seen at [accessed in August 22, 2021]: <https://www.youtube.com/watch?v=e2YLrznH8Q>.

the affirmation of the post-dramatic here and now and carries this presence directly to the audience through sound, penetrating it, provoking it and questioning its reaction.

Even though there is an opening and a context for vocal exploration to emerge in a non-logocentric manner that is integrated in other theatrical components in this new vision of theatre, there are few creators that dive deeply into this research. The voice has gained, in this new theatre, a more wide-ranging place, that does not depend on a narrative, making use of a polyglottism and recovering archaic roots of sound, but I would say that movement and words, even in a non-narrative, non-mimetic logic, still dominate theatrical creation. That is to say, there are not as many creators whose driver for creation is the voice, as there are many others with a centrality to the body/movement.

### **Vocal Theatre - close nomenclature**

Perhaps there is a need to open another territory, where we can frame a contemporary scenic creation that emerges from various affiliated intersections, such as post-dramatic theatre, contemporary music, performance, musical theatre, etc. The denomination “Vocal Theatre” is not new and it is mentioned in some publications. However, as far as I was able to ascertain, it is not an established term or even a recognised one in theatre practice. It would perhaps be a possible term to frame this kind of show, thus its production would be greater and more consistent.

There is a recent term that seeks to establish a territory between music and theatre, imbued with a post-dramatic perspective of creation: “composed theatre” (Rebstock & Roesner, 2012). Although the editors of the book found a strong identification with what Lehmann described as the musicalization of theatre, they equally point out some significant divergences: the term “composed theatre” suggests a new perspective in the process of creation, a dramaturgical quality, while the musicalization of theatre of Lehmann is more of an aesthetic and a performative quality and refers substantially to the musicalization of language devoid of semantic content and not of the presuppositions of musical composition. As well as this, according to this publication, Lehmann focuses on theatre and performance, whereas *composed theatre* encompasses *music-theatre*, dance, concerts and sound installations, that is to say, it is closer to a theatricalization of music.

Filiated by some notions brought forth by Aperghis and in a lineage of erudite composers such as Schönberg, Cage, Kagel, Schnebel, Tsangaris and Goebels, *composed theatre* goes back to a more recent era, starting in the 90s of the 20<sup>th</sup> century, crossing interdisciplinarity and intermediality, therefore referring to a process of scenic creation that carries notions of musical composition into theatre and into the scene.

Though *composed theatre* represents the opening of a territory for intersection between theatre and music, and refreshes the now antiquated notions of *musical theatre* with erudite roots or Theatre-Music with new clothing, and despite some of the authors mentioned in this work fitting into this nomenclature, such as Meredith Monk, it does not appear to me that this concept covers what we are looking for in a new show, centred around vocal research in relation with the scene. As well as this, to presuppose musical composition as the driving force of the entire show is far from being what we are seeking as our matrix.

Another of the designations that we could consider as having an affinity with what we are portraying here is the term proposed by Jelena Novak: “postopera”. This term, filiated in the theorization of post-dramatic theatre by Lehmann, attempts to contextualise a typology of non-conventional, contemporary and post-modern shows of a musical/operatic nature, that rethink

the relationship with the body and the voice, in works of composers such as Michel Van der Aa, Laurie Anderson, Louis Andriessen, Philip Glass, Peter Greenway, Hal Hartley, Beryl Korot, and Steve Reich (Novak, 2015: 4-5). This typology of shows whose designation as “opera” Novak considers to be inadequate, and though their strength lines cross with theatre, the media and with contemporary forms of framing the body and the voice, clearly guides its field of action towards musical composition, where the figure of the composer and of the compositional matrix remain preponderant. I recognize the quality of the theorization proposed by Novak, but because that investigation is centred on musical composition, and consequently, does not equate the performers’ vocal research as creators along with the other elements of the show, making composition, instead of vocality, as its main driver, leads me to believe that this designation does not serve the goals we seek. As well as this, the term “postopera” maintains the idea of opera, which reduces the realm of vocality, marginalising performers or shows that have no filiation in classical music, as is the case in Meredith Monk.

The designation we seek would need to have vocality as a central idea and also contain that of theatre and the scene. Even if it were considered vague, imprecise and timeless in character, perhaps the term *Vocal Theatre* is more fitting in a type of show whose vocal research and theatricality are placed on an equal footing and wherein the voice is the driving motor of the scene.

### ***Vocal Theatre* - a specific show typology**

I found the denomination “Vocal Theatre” sparsely and sporadically in some publications which do not allow for, in my view, the consistent affirmation of a specific type of show. The English term “Voice Theatre” is used in some cases such as, for example, the British group *Electric Voice Theatre*,<sup>15</sup> led by soprano Frances M. Lynch: it assumes itself as a Contemporary Theatre-Music group or, as we referred previously, a *musical theatre* group with erudite roots, whose vocal exploration is very present. That is, in this case, although the voice has a central value for the group (almost all the members of the team are singers), its aesthetic filiation is defined by parameters connected to erudite musical composition, where the musical composition, in itself, is a preponderant element.

As far as I was able to gather, and despite that the designation *Vocal Theatre* can appear in several situations, its meaning is disperse and not very consistent. The search for a term that designates a type of show with sparse artistic manifestations can be a thankless task, since it may never affirm itself as such: it is artistic practice that can bring consistency to a theoretical term and sediment its validity. Even so, I believe it may be fruitful to attempt to find a designation for this type of show, if only for the reflection and the discussion that it compels us towards.

How could we then designate a type of theatre show of a post-dramatic nature, in its fragmented, non-narrative character, exploratory of the voice itself, intermedial and multidisciplinary, whose inspiration could come from contemporary music (but without the preponderant figure of a composer placed above the other artistic fields), but also from ethnic, jazz, or any other kind of music, and that above all, whose driving motor for creation is the voice, and the exploration of its multiple facets? What if it is a theatre show that is neither *musical theatre* (or its characteristic crossover), nor *musical theatre* with erudite roots or *music-theatre*, or *composed theatre*, or postoperatic or merely post-dramatic (in this case this designation is

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<sup>15</sup> Said page can be seen at [accessed on August 22 2021]: <http://www.electricvoicetheatre.co.uk> .

insufficient) or performance art, but that can have a bit of all of this? How do we characterize a show such as MAGMA or the various solos by Fátima Miranda or many of the works by Meredith Monk?

I believe that we have sufficient data, if we look at the work of the two creators referred above as an example, to verify that there is a specificity in this type of show, which allows us to take a risk on a more precise designation, which I propose should be *Vocal Theatre*. Without wanting to restrict its scope too much, nor contemplate numerous exceptions that may appear, I would risk establishing as the basilar territory for this type of show several characteristics: firstly, a centrality on the voice, be it in the search for varied sounds (such as timbres, placements and emissions), be it in the exploration of its numerous facets (such as emotional, intentional, relational), in a quest for less common or classified sounds, or, at least, in the placement of recognizable sounds in more unexpected contexts; secondly, the search for a scenic relationship for those sounds, in a non-hierarchical interdependency with theatricality, that is to say, the vocal sound exists in a close relationship with the scenic writing, where one is not more important than the other, which allows the spectator a variety of lines of reading (visual, and sonorous); thirdly, the search for a dialogue with other fields, such as music, be it recorded, be it musical instrumentation or even composition, scenography and costumes, movement or dance, video, installation, etc..

In the designation *Vocal Theatre* that I propose, although musical composition can be of great importance, that is not the starting point: it is instead the expressive resources of actors/singers. It would not be composition that would dictate the scene and the choice of performers, but the unique characteristics of the latter that would be developed in a vocal scenic proposal. It is from the voice and the voices of those intervening and from their unique performative character, recalling Cavarero, that the dramaturgy of the show is built, that is, there isn't the figure of the composer who selects the voice or voices that fit into their composition, but rather it is from that voice or those voices, better yet, from those people, that a musical and theatrical logic is built (obviously the performers/creators can be selected, but less from the perspective of a disembodied voice and more from a global vision of the creator/performer).

Is this not what happens in countless shows by Meredith Monk and Fátima Miranda? Is it not from their unique vocal and scenic characteristics that their shows are conceived? Even when directing and composing pieces for others, Monk does so for those specific voices and not for an abstract, depersonalised performer.

In this proposal of *Vocal Theatre*, it would be singularity which, essentially, would make us feel more profoundly universal, that is, more connected or identifying with one another and not the opposite. This would be, with all the exceptions that may exist, a proposal, a basilar premise of this *Vocal Theatre* that has already emerged in the contemporary scene.

## **MAGMA (vocal solo) - *Vocal Theatre* in Portugal?**

The show MAGMA (vocal solo)<sup>16</sup> seeks to answer the initial questioning: What remains of the voice without text and without a specific musical style? What structure can we find for vocal presence on a stage without words and songs? Can the voice be the driving force for scenic creation?

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<sup>16</sup> The show may be viewed here (visited on 21 August 2021): <https://www.youtube.com/watch?v=pNJ5r5fYakk> .



In that quest for a primordial, originary, primitive, pre-verbal vocality, I discovered an excellent driving force for vocalisation in the painting of Francis Bacon. Vocal improvisation from the painter's work led to the emergence of lesser-known sounds from the vocal scenic lexicon – usually only *admitted* if they are inserted within a narrative, such as laughter, crying, sighing and moaning. The painting of Bacon revealed itself, therefore, to be an excellent driving force for accessing the most primordial and universal sounds, the place of becoming-animal where it becomes possible, despite that, that we may recognize and understand ourselves.

Bacon was an access route to this particular and exceptional vocal territory: a typology of sounds that escape the structures that most commonly organise vocal emission: semantics and music (in its tonal organisation).

From this viewpoint, I pursued the idea that the voice on its own, without basing itself in the structures of language and musical composition (but with the ability to momentarily resort to them), can be the driving force for contemporary scenic writing. The goal of the MAGMA solo was, therefore, to conceive a show with a coherent dramaturgy, where several vocalities would emerge with a fluidity perceivable by the audience, communicating with it, seeking to answer the initial question.

Even though, at times, I resorted to a musical logic, namely in the melodic improvisation over a repeated sound, the driving force for this show was the voice, that is, the voice as one of the main drivers of the scene, in its most varied multiplicities, according to the characteristics of the aforementioned *Vocal Theatre*. In that sense, fragmentation was performer one of its traits. With this work I also found that the applicability of vocal research and of *Vocal Theatre* presuppositions is an asset not only from an artistic viewpoint but equally from a pedagogical stance: it has revealed itself, throughout my activity as a lecturer, as an original and creative way of amplifying the scope of the voice, while respecting the specificity of the voice of each.

## Conclusions

I defined *Vocal Theatre* as a type of theatre performance of a post-dramatic nature, pertaining to its fragmented, non-narrative and multidisciplinary character, whose driving creative force is the voice and the exploration of its multiple facets and which maintains interdependence with theatricality and dialogue with other artistic fields. The voice, ontological mark of the singularity of the vocal artist is, in this context, embodied and becomes part of the performer's artistic positioning.

I hope that these two concepts, *Pre-Voice* and *Vocal Theatre*, which have emerged from practice, return to it and make it much more intense, inclusive and plural, contributing toward the development of voice studies.

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# The gendered physical narrative of wind virtuosity: *Pasculli*, the opera fantasia, and the female oboe

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**Abstract.** Whether it is the discomfort of circular breathing or the flourish of a bow, physicality holds power over an audience. But it also becomes an arena for restrictions in who may play what, connected to the tensions created by cultural connotations of virtuosity. Here I focus on the physicality of oboe performance and the connection of this physicality to the firm rooting of the oboe in the physicality and emotions of the female body and mind. The oboe remains an instrument whose need to be controlled, and whose resistance to such control, reflects a nineteenth century conception of a woman's body and of the activities appropriate for women. Beyond this, the intricate connections between the physicality of performance and the musical content of opera fantasias magnify narrative possibilities in instrumental works, allowing the operatic women portrayed within them to escape their operatic tragedies and actively perform their own happy endings.

**Keywords.** Gender; physicality; instrument; narrative; virtuosity

## Introduction: The physicality of virtuosity

Discussions of the physical impressions of virtuosic performance upon the audience are familiar territory; the great virtuosos of the nineteenth century were described in close detail by those who attended their concerts. London theatre critic Leigh Hunt was one of many who noted Paganini's physical approach to the violin, writing in 1831 that Paganini's "fervour was in his hands and bow. [...] He did not put his bow to the strings, nor lay it upon them; he struck them" (Houtchens, 1949: 272-3). The nineteenth century also saw a wide range of musical aspects and music performance aspects became increasingly gendered. Not only instruments, but also genres, styles, affects, repertoire, the more understandable physical stage presence, became masculine or feminine, acceptable or unacceptable in different measures for different musicians. Attention to physical and mental detail in musicians and instruments was not new to the time of Paganini. Eighteenth-century musicians and critics also engaged with physical appearance and description of performers. C.P.E. Bach describes the connection between a performer's appearance and the music being played thus: "In languid and sad passages he becomes languid and sad. We see and hear it." (Weiss & Taruskin, 1984: 272). Similarly, violinist Giuseppe Cambini instructs performers to "think that you wish to move me...electrify your arm with the fire of this thought...so that your bow becomes your tongue" (Le Guin, 2006: 86). Neither was more explicitly gendered description unheard of before the nineteenth century. Flautist Johann George Tromlitz (1725-1805) advises that a flautist should both "try to achieve a steady,

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metallic singing, even sound” and “try to achieve only such strength as is healthy and masculine” (Tromlitz, 1991: 311-2). The early oboe was also “Majestical and Stately and not much Inferiour to the Trumpet”, as well as “brave and sprightly”, and this characterization held during the eighteenth century (Bate, 1975: 44-45).<sup>2</sup>

However, in contrast with earlier periods, in which “difference in sex was more a quantitative than qualitative matter, and a well-populated middle ground between the usual sexes was broadly acknowledged” (Frietas, 2003: 204), the nineteenth-century middle classes in and beyond music worried that “men were no longer men” and that strong women caused “emasculatation” (Reynolds, 1995: 139). This development has been widely discussed by scholars including Richard Somerset-Ward, Allen J. Frantzen, Naomi André, Roland Barthes, and Heather Hadlock, to name only a few. And this development had a profound impact on conceptions of woodwind instruments, as ever more strikingly feminine woodwind instruments then became a way to reinforce their players’ masculinity. By the time of Berlioz, a particularly vigorous proponent of gendered instrumental descriptions, the oboe is an instrument of “naive grace, sentimental delight, or the suffering of weaker creatures”; when attempting strength or showmanship, “the splutter of rage or threats or heroics”, “its little bittersweet voice becomes quite ineffective and absurd” (Berlioz, 2002: 104). Surely Bach or Vivaldi or Handel would object to this characterization.

While this shift is particularly keenly felt with the oboe, the clarinet and flute experienced the same transition. And woodwind instruments were not alone in this; while high woodwinds shifted from military and heroic characterizations to feminine ones, the soprano voice moved from a duality of femininity and heroism (as in the form of the castrato) to a solely feminine trait. Intersections between this gendering and the physicality of instruments, particularly woodwind instruments, are still resonant, retaining striking similarities even between the early nineteenth century and today. Ricordano De Stefani’s *Della Scuola di Oboè in Italia* stresses the oboe’s “own special character”<sup>3</sup> and references Berlioz, while –to give only one modern example– Samuel Adler’s orchestration manual stresses the importance of matching instruments and roles “psychologically as well as musically” before portraying the flute, oboe, and clarinet in feminine terms (De Stefani, 1886: 6; Adler, 2002: 156). Perhaps one then could argue that the oboe is the most natural solo instrument to take over “Pegno d’amore” and “O luce di quest’anima” from Donizetti’s *Linda di Chamounix*, as it does in Giovanni Rossi’s *Fantasia per Oboe sopra motivi della Linda di Donizetti*. But the oboe does not accompany Linda in any particularly notable way at this point in the operatic score, and succumbing to Berlioz’s feelings here in the context of a fantasia then creates trouble when the oboe must perform its neither “spluttering” nor “ineffective” virtuosic finale.

Despite the increasingly fraught role of virtuosity in music and an increasing focus on a wide range of gendered aspects of music and of the performance of music as the nineteenth century progressed, analytic connections back through time offer new clarity to analyzing woodwind instruments in composition and performance. Whether it is the discomfort of circular breathing or the flourish of a bow, physicality holds power over an audience. Visual aspects allow the audience to empathize with the performer: to recognize the difficulty of their task and to become more fully invested in the emotions and affects of the piece being played. But simultaneously, visual aspects of playing become an arena for restrictions in who may play what, and virtuosity produces an emotional tension between the enjoyment of the player and of the audience,

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<sup>2</sup> Quoting *The Sprightly Companion*, author likely John Bannister, published by Henry Playford in London 1695.

<sup>3</sup> “il proprio speciale carattere” (author’s translation)

between what is comfortable and what looks good, and –as Elisabeth Le Guin argues– “between appearances and an interiority not ultimately accessible to display” (2006: 103).

## Instrumental physicality

In her book *Boccherini's Body*, Elisabeth Le Guin focuses on eighteenth-century performance, and virtuosity reads differently for different instruments, for different times, and different places. Still, applying her analytical methods to the virtuosic oboe works of Antonio Pasculi proves enlightening of nineteenth-century virtuosity, the nineteenth-century body, and the nineteenth-century performer-composer. Pasculi was an oboist, conductor, and composer who was a fixture of musical life in Palermo, Sicily in the second half of the nineteenth century. He was also an astonishingly talented virtuoso on his instrument, like most composers of opera fantasias – works for a solo instrument that are based upon melodies from operas.

Pasculi's fantasias, which are almost bewilderingly difficult, reflect this. But they also reflect his long career as an educator and his academic training in composing; his compositions lie precisely and idiomatically on the oboe and flow smoothly from theme to theme. Examining Pasculi's physical skills and the ways in which he displays those skills musically reveals not only his particular technical strengths but also ways that the physicality of the oboe intersects with operatic narratives and operatic physicality, along with gendered aspects of instrumental physicality. Fantasias are deeply and intrinsically virtuosic works that nevertheless carry content beyond that of their virtuosity.

Le Guin investigates the connection between compositions written by virtuosos and both the showy physicality of putting on a performance and the more pedestrian physicality of playing an instrument. A cellist herself, Le Guin uses her experience in performing Boccherini's music to investigate the ways in which his physicality and personal virtuosic abilities on the cello influenced his compositions, as well as ways in which Boccherini's music thus reflects contemporary views on the body and its abilities. Much of Boccherini's physical virtuosity is presented as a private aspect of composition, a means of analysis for the performer rather than the listener, and Le Guin picks out shared traits between pieces that are noticeable to the performer while playing, but that are not formally or melodically significant. This compositional tendency is far from unique to Boccherini, and it can be hugely revealing of performance abilities and instrumental characteristics. Pasculi's cadenzas, for example, are similarly often deeply chromatic and repetitive between compositions in ways that feel more similar than they may look or sound. In performance, the hand wants familiarity and ease, while the intellect and ear (of both the audience and the performer) want variety and interest. Perhaps these comfortingly similar cadenzas form a microcosm of the ability of the opera fantasia to represent the unexpected: the familiar made more “interesting” or unique (though still recognizable) contributed to its success in navigating that tension between comfort and interest for both the performer and the audience.

Of course there are obvious, unavoidable physical differences between the cello and oboe which manifest in the instruments' relative physicality of performance. Perhaps the most pronounced is the need of the oboist to breathe. Breathing is one aspect of performance that can be made visible or invisible to suit the music or performance situation. The breath is the wind player's upbeat, the means of cuing any accompanists or fellow musicians, of inviting attention, of clarifying meter, and of simply signalling the opening of the piece. Conversely, oboists work hard to be able to “disguise” breaths when necessary, avoiding a disruption to the line or rhythm. The analytical overtones of such simple aspects as depressing or lifting fingers and keys are different as well. My use of Le Guin's work is not meant to elide this, nor to blur the temporal

boundaries between Boccherini and Pasculi. But the literal connections between motion and effect, rather than their respective representative overtones, are beside the point. The analytic approach allows us to slide beneath the overt physicality into the unconscious, visible-but-invisible meanings and emotions transmitted from composer-performer to audience.

## The oboe's virtuosic physicality

A great deal of nineteenth-century musical writing for the oboe was not virtuosic. Besides the technical difficulties presented by the still developing key system, masculine virtuosity was not appropriate for such a feminine instrument (Berlioz is hardly alone in his conception of the oboe and his complaints about the oboe's "little voice" "spluttering" through showy parts). Capitalizing on the oboe as an expressive instrument, composers from Beethoven to Tchaikovsky to Verdi wrote huge numbers of solos within orchestral works instead of solo works. And yet, although the oft-repeated statement that Pasculi referred to himself as "the Paganini of the oboe" is a myth, Pasculi did write intensely difficult pieces for himself, seemingly to provide the technical challenge lacking in available repertory. Further, Pasculi was not writing or performing in a virtuosic void. Earlier Italian oboe fantasias, like those by Giovanni Daelli, survive, though few approach Pasculi's level of virtuosity, and the Besozzis were only one earlier family of Italian virtuoso oboists.

Nonetheless, the oboe was generally treated rather as a "voice without language," a "small voice lost in a storm", or, conversely, a seductive and sensual exoticized woman than as an instrument able to participate in "masculine" exhibition (Burgess & Haynes, 2003: 234, 237). In and beyond standard orchestration treatises, the oboe is not only strongly characterised as female but also pervasively associated with operatic women, and more specifically with the operatic woman experiencing loss: Gluck's *Euridice*, *Iphigénie*, *Alceste*, and *Armide*, Wagner's *Elsa*, *Freia*, *Sieglinde*, and *Brünnhilde*, Verdi's *Amelia*, Beethoven's *Leonora*. There are clear links to Pasculi's treatment of the oboe in his fantasias, in which the oboe replaces the voice of a character (generally female).

The oboe is linked to problematic femininity physically as well as aurally in nineteenth-century accounts. Alfred Guichon, writing in 1874, describes the oboe as a young girl with "such feminine softness, such secret charms...her heart still palpitating" (Burgess & Haynes, 2003: 226). Guichon explicitly feminizes the oboe and implicitly links it to the hysterical woman by describing one physical aspect, the palpitating heart. The oboe not only "resembled the highly stigmatized nineteenth-century image of womankind as being always on the verge of hysteria", but also was "brought under subjugation" by the inevitably male performer; instrumental changes throughout the nineteenth century expanded technical possibilities but served "above all to attenuate its waywardness" (Burgess & Haynes, 2003: 234). The oboe's unpredictable reed is one of the best examples of the oboe as a "hysterical" instrument; an oboe reed is intricate and flimsy, easily broken and unreliable, changing with the weather, or how much it has been played, or the unknown whims of wood. In order to produce beauty, the changeable, though beautiful, tone of the oboe had to be controlled by the powerful oboist. Additionally, because of the tiny aperture created by the double reed, the oboist, far from running out of air, is instead perpetually on the verge of having too much air. Exhales as well as inhales must be planned, and stress can easily leave a performer hyperventilating from a build-up of air and a lack of oxygen. A comparison with the corseted body of the nineteenth-century woman seems melodramatic but apt.

So. The oboe is rooted in physicality, as is every instrument in one way or another. Other woodwind instruments share many similarities with the oboe in their broad strokes. Brass

instruments, percussion, the piano all engage with myriad physical – or “carnal” in Le Guin’s terms – efforts by the player. Yet this is both an overwhelming certainty and a delicate balance to walk. Every instrument may be rooted in physicality, but the differences between the instruments are clear, and illuminating. Playing a trumpet, though it engages with breath, mouth, and fingers, is radically different from playing an oboe, and this will of necessity be reflected in the compositions for each instrument and the discussions thereof. The trumpet is not a breathless, corseted, hysterical woman (though the flute may be). Not every instrument’s physicality is the oboe’s, with its reeds and fingers and historical associations.

The ubiquity of the “carnal” when performing does not diminish its legitimacy as a means of analysis; instead it supports this approach. Performance makes bodies legible, drawing the audience into the efforts of the performer in a way beyond the aural effects of the music. Whether it is the power of circular breathing or the dramatic visual effects produced by bowing, the performer’s actions, the way that these reflect and alter the sounds which they produce, generate a fuller and clearer picture of a piece of music for both themselves and their audience. And these bodies and their reception make elements of society and culture and bias legible. Examining the physicality of oboe performance reveals the connection of this physicality to the firm rooting of the oboe in the physicality and emotions of the female body and mind.

### **Performative analysis: Fantasia per oboe sopra motivi dell’opera “Gli Ugonotti”**

A look at Pasculli’s composition *Fantasia per oboe sopra motivi dell’opera “Gli Ugonotti” di G. Meyerbeer* allows us to examine intersections between virtuosity and physicality, and the gendered implications of this, in his works. The fantasia is representative of Pasculli’s writing style in form, difficulty, instrumentation, and treatment of themes; it is broadly representative of woodwind opera fantasias as well, though perhaps more difficult than average. Like clockwork he alternates the presentation of a theme with the virtuosic development and ornamentation of that theme.

Through the arrangement of themes present in the following table, Pasculli focuses on the dilemma of choosing between love and politics; this is the subject of Marguerite’s aria, and in Raoul and Valentine’s duet, Valentine sings about Raoul, “mon seul bien”, and Raoul of his duty towards “mes frères”. The theme of love versus political duty is explicitly discussed in the opera; however, both Valentine’s political marriage and her later marriage to Raoul end in death. By associating the oboe with Raoul’s music through virtuosic ornamentation and the length of his theme in this fantasia, Pasculli depicts this choice from Raoul’s point of view, but in the end appears to side with Marguerite rather than with Raoul. The theme that opens the fantasia, played by the piano, is the accompaniment to Marguerite’s air “O beau pays”, and though the piano alone opens the fantasia, the oboe soon enters with a cadenza based on the theme. Then, while the two themes which Pasculli most dwells on in the fantasia are the accompaniment to Marguerite’s air and the portion of the duet in which Raoul argues in favour of duty rather than love, Marguerite has the last word. The final repetition of Raoul’s theme, played only in the piano, is first covered up by virtuosic technicalities in the oboe and then subsumed by a final rendition of Marguerite’s accompaniment by the oboe.

Table 1. Themes and form of Pasculli’s *Fantasia per oboe sopra motivi dell’opera “Gli Ugonotti” di G. Meyerbeer*

	Operatic Source	Length	Key in fantasia	Key in opera
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1	Theme 1	Act 2 entr'acte/accompaniment to theme 3	12 bars	D	G
	Theme 1 and 2	(Oboe continues theme 1 over piano theme 2)	19 bars	D	G/Ab
2	Theme 2	Act 2 Scene 3 – “Jeunes beautés” second theme (chorus)	78 bars	C	Ab
3	Theme 3	Act 2 Scene 1 – “O beau pays de la Touraine” (Marguerite)	18 bars	Bb	G
4	Theme 1		5 bars	F to D	G
5	Theme 4	Act 4 Scene 6 – “Le danger presse et le temps vole” (Raoul and Valentine)	34 bars	g min	f min
6	Theme 5	Act 4 Scene 6 – “toi, mon seul bien”/”Ce sont mes freres” (Raoul and Valentine)	21 bars	G	F
7	Theme 6	Act 2 Scene 3 – “Jeunes beautés” first theme (chorus)	22 bars	G	Eb
8	Theme 4		17 bars	e min	f min
9	Theme 5 and 1		10 bars	G	F/G
10	Coda based on theme 2		27 bars	G	Ab

In a fantasia, the narrator occupies a triangulated abstract position between instrumentalist, composer, and character. We see that clearly in the figure of Marguerite and the power given to her in this composition. Pasculli is the narrator; he chooses which scenes are shown, which characters are portrayed, what attitudes are highlighted. Marguerite is the narrator; the fantasia is presented from her point of view, emphasizing her role in the opera and her opinions. The oboist is the narrator; Pasculli associates the oboe with Marguerite’s character and it is through the oboist that the music comes to life and is heard separately from the opera on which it is based. Yet it is only through the combination of all of these that the fantasia can present a narrative, and yet, as in all instrumental music, the composer is not literally expressing opinions through music, the character is not literally speaking, and the instrument is not literally playing a role. This fantasia bridges Pasculli’s two means of organizing fantasias, that of an altered love story and that of a character study. Pasculli’s alignment with Marguerite has another side effect; he concentrates on the person who engineers the romance rather than one of the participants in the love story, and on her intended ending to the story rather than the actual ending as in the opera. Pasculli thus emphasizes the character who does within the world of the opera what he does within the world of the fantasia, and the “agent” of the fantasia’s narrative arises from the joint efforts of Pasculli as composer, Pasculli as performer, Marguerite as character, the narrative of the opera, and the narrative created from the opera. This surfaces not only through the selection and ordering of the opera’s themes but also performatively and physically in the fantasia.

From the oboe’s first notes, Pasculli is engaged in a game of tension and release expressed both musically and through the oboist’s physical efforts. And from the fantasia’s first bars we are connected to Marguerite. The oboe interrupts the piano’s *maestoso* introduction with a dramatic flourish. An extended trill leads to a gathering of energy, falling more than an octave and then rising up an octave and a sixth through an extended chromatic scale. As we reach the top, a series of half-steps creates a sense of (literally) rising tension – we await the lifting of the curtain, the entry of the operatic characters, discovery of where the action of the fantasia will begin within the plot of the opera and of how the soloist will impress us on the more intimate stage – and the same is true of the physical act of playing them. The movement from D to E, the movement with which the oboist begins this technically demanding work, is the repeated depression of the ring finger of the right hand. The movement is certainly a common one, and one fully engrained in the mind; no minute hesitations to double-check the motion are necessary. However, this motion is one full of tension in the fingers, while the trill on A represents a lessening of physical tension, serving as a springboard further upwards. Half-steps form



somewhat of a motive throughout the first section of the fantasia, used both to gather energy and to increase tension. The oboist's first main thematic section is built around trills sequencing upwards, and it ends in an arpeggio-heavy second cadenza. Tension builds through an entire measure of intricate motions of all fingers in the right hand, ending in yet another trill.

While I have characterized the oboist's entry above as functioning like the anticipatory tension before the curtain rises, musically the effect is at once anticipation of the curtain and the sudden raising of the curtain, revealing a new character. And, as in the selection of substitution arias, where a singer "confronted a question as long-standing as it was predictable: which entrance aria would function most effectively as a showpiece for her talents?", this selection critically determines the introduction to the audience of the oboist's tone, technique, and musical stage presence (Poriss, 2009: 40). How are we introduced? With a showy and emotional connection to Marguerite, one that combines vocal and instrumental elements and sets the stage for us to also witness the oboe's invocation of Valentine and Raoul through Marguerite's eyes.

Throughout his compositions, Pasculli seems to use slow, emotional themes and virtuosic work to associate the oboe with a character or plot line. This is true more widely of opera fantasias. And beyond this, it is often the most vocal ornamentations or the most intensely difficult that create this association. To clarify: the kinds of ornamentation applied to a given theme of a fantasia can be divided into that derived from the original vocal part and that which emphasizes the instrumental nature of the fantasia. Fantasia composers sometimes copy the ornamentation which appears in the printed score of an opera into their fantasia, particularly in their initial presentation of a given theme, making full use of the graces (appoggiaturas, turns, and trills) and more complex divisions ("a series of rapid notes performed in one breath on a single syllable") given by the opera composer (Toft, 2013: 136). While this of course is a short cut for the composer in providing a recognizable yet showy version of an operatic melody, it also can help to strongly connect the solo instrument of a fantasia to the character whose melody they play. Both connections to previously composed opera themes and the vocal, emotional quality of the instrumental performances were frequently highlighted as praiseworthy by contemporary critics and audiences. Pasculli uses this approach in his presentation of Marguerite's "O beau pays de la Touraine", which initially serves as a moment of repose after a jaunty chorus. Marked *dolce e con espressione* and then again *con espressione* only a few bars later, the added passing and grace notes mimic the opening of the aria and the arpeggios and turns mimic the vigorous vocal ornamentations added by Meyerbeer as the scene progresses. The oboe even moves into a cadenza begun by a Marguerite-esque upward arpeggio. However, Pasculli then slides into his second means of associating instrument and character, instrumental intensity.

In order to fully show the virtuosic potential of a given instrument, composers nearly always include additional ornamentation that is non-vocal for reasons of range or technique. Two common varieties are repeated scales (major, minor, or chromatic) or arpeggios and ornamentation in which the solo instrument essentially plays both a melody and a fast-paced accompaniment. This second technique is highly virtuosic and intensely difficult, and thus frequently the showpiece of the fantasia. This kind of ornamentation, like extremely vocal ornamentation, generally appears on themes related to the "main" character of the fantasia, helping to establish our narrator and new plot. Here we see this association clearly in the extended cadenza at the end of "O beau pays", a cadenza which stretches for more than an entire printed page and which makes Pasculli's later virtuosic variations on Raoul and Valentine's Act 4 duet feel lightweight in comparison. There is some complication in this cadenza, as it seems to share significant elements with a cadenza in another work by Pasculli, *Concerto sopra motivi dell'opera 'La Favorita'*. Despite this, while the cadenza is not at all the only intensely difficult section of the fantasia, it certainly serves as the focal point. Even this re-use of material serves to strengthen the duty-based subtext of the fantasia: it potentially

lessens the emotional resonance of a section usually tied to the central love story, while also further attaching that section to Marguerite and establishing her as the main character despite the length of time afforded to the music from Raoul and Valentine's duet.

The physical virtuosity throughout this fantasia, and every fantasia, is at odds with our lasting, nineteenth-century-based conception of the oboe as a delicate woman. And yet this virtuosity allows for strong connections between the female oboe and a female character, and often for the re-writing of operatic narratives to allow for *La Traviata's* Violetta or *Un Ballo in Maschera's* Amelia or *Il Trovatore's* Leonora to reclaim a happy ending. Scholars such as Mary Ann Smart and Carolyn Abbate critique the operatic tradition of the tragic woman, often driven to madness, who dies at the hands of male characters and a male composer. In a fantasia, a "female" instrument combining a female character with "male" virtuosity perhaps lends these operatic women some agency. Of course, the performer of these compositions was male, here Pasculli himself, and only through the performer does the character gain a new ending, but the women of many fantasias are no longer out of control, helpless, fragile, and tragic, but rather skilled, powerful, and successful. And they are skilled, powerful, and successful by means of the alteration and manipulation of operatic narratives through virtuosic embellishment and emotional evocation.

## Conclusion

About halfway through her book, Le Guin makes a fairly dramatic caveat: "not every movement an instrumentalist makes is legible. In...most cases, truth be told – what the string player does makes no sense as pantomime, and signals nothing at all except what it actually is"; "what it actually is" being only the necessary movements and physical effects required to draw sound out of the instrument (Le Guin, 2006: 103). Certainly this is true. A cellist's progression up the fingerboard is a necessity if the composer ever wishes to include an ascending line in a piece, and the oboist must lift fingers from keys in order to do the same. But for a performer, the finger motions necessary to play an ascending arpeggio, while simple and unremarkable, can be used as a piece of showmanship to gather energy and rocket upwards. The resistance of certain notes is a happenstance of physics, but a performer or composer may still use the variance in resistance when forming a personal conception of the music or to heighten the drama of a phrase. Further, these physical elements can often be linked to narrative or character-based moments of emphasis. John Rink writes of his melding of performance and analysis that his intention is "to discover specific ways in which analysis can help – rather than constrain – the performer" (1995: 255).

Opera fantasias are not merely series of beautiful and famous tunes strung together to snare an audience of fans who want to hear their favorite songs replayed in sparkling and exciting virtuosic ways. Fantasias reveal purposeful compositional choices and powerful negotiations with and against the operas on which they are based. By looking beyond the surface of the music we can more than glimpse the unconscious implications of these pieces and their position in society. The interaction between the structural ordering of the fantasia and the character types of the fantasia allows for it to function as commentary, the virtuosic ornamentation on the opera melodies reflects vocal and instrumental performance decisions and creates strong associations between instruments and characters, and the huge stores of surviving fantasias and the myriad discussions of them in contemporary journals further demonstrate the importance of opera to the community in which these virtuosos were composing and performing.

A review from 1988 describes oboist Léon Goossens as having "showed the way to making the instrument (previously considered "too strenuous") into one suitable for young ladies", showing

the continued resonance of the oboe's tricky historical physicality (Burgess & Haynes, 2003: 246). More subtly, a review from 2000 of oboist Yeon-Hee Kwak's recording of five Pasculi pieces remarks, "that this extraordinary young woman doesn't pass out is truly a miracle"; this is certainly gentler in its problematic overtones, but it does recall entrenched concerns over the oboe's suitability for women (Cook, 2000). Compare this to the 2013 description of male oboist François Leleux playing Pasculi: "his virtuosity [is] limitless and flows so naturally from its source that one is no longer aware of all the hard work that preceded it" (Haegeman, 2013). And see this 2018 review of clarinettist Martin Fröst that initially focuses on his "his lanky build and physical agility" (Tommasini, 2018). I recently encountered an Italian oboist posting on Instagram that he wished only that "oboe" were a feminine noun: "*L'oboe ha un solo difetto: non è un sostantivo femminile...*" (Nigro, 2020). I challenge you to consider whether you can realistically imagine a review which concludes "that this extraordinary man doesn't pass out is truly a miracle".

Physicality is inevitable, but it is significant. It is at once vital and nearly incidental to Pasculi's virtuosic compositions. And it belongs not to Boccherini or Pasculi specifically or to the cello or the oboe alone but to every performer and to every audience watching and listening and feeling them. The intricate connections between the physicality of performance and the musical content of fantasias magnify narrative possibilities in these works, allowing the operatic women portrayed within them to escape their operatic tragedies and actively perform their own happy endings. Yet our perceptions of fantasias remain bound to specific musical and societal limitations outside of their original contexts, and our perceptions of the instruments that play them remain bound to specific musical and societal limitations outside of our own contexts. The oboe remains even now an instrument whose need to be controlled, and whose resistance to such control, reflects a nineteenth century conception of a woman's body and of the activities appropriate for women.

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# The Free Music Improvisation performance and the emergence of new musical creations

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## Abstract

Improvisation is defined as the creation of a musical process, as it is being performed. This simple definition exposes how the performance is intrinsic and cannot be dissociated from the Free Music Improvisation practice. This paper will analyse the free improvisation performance and it will show how this musical practice produces new music each time. We will show how improvisers change their performance capabilities for each situation and how they can adapt to all kinds of situations that can arise during the performance. By analysing the performance of the large improvisation ensemble *Grand8*, the importance of the performance in the improvisation practice will be demonstrated and how crucial it is to the emergence of new music. This paper will examine how the ensemble adapted itself to the pandemic crisis, where the ensemble had to redefine its performances to continue the improvisation practice.

**Keywords:** Free Music Improvisation; Performance; *Grand8*; complex system; emergent properties; feedback; pandemic music.

## Introduction

*The New Grove* defines improvisation as "The creation of a musical work, or the final form of a musical work, as it is being performed"(Horsley, 1995). This simple definition exposes how the performance is intrinsic and cannot be dissociated from the Free Music Improvisation (FMI) practice. It has been demonstrated the need of the performance in FMI by analysing the creation phases of different forms of musical creation. We observe that in FMI we have two phases: the personal musical training and the performance itself. The musicians generate and develop new musical ideas while they are performing in front of an audience. They rely on their musical experience to adapt their technical capabilities and interact, in real time, with the environment surrounding them.

In this paper, I would like to propose an analysis of the free improvisation performance and question how this music practice produces new musical creations at each event? How can an improvised music ensemble manage to continue producing new music over a long period of time and what is the importance of the performance in this process? How can improvisers change their performance capabilities for each situation? How can they adapt to all kinds of situations that can arise in the performance time?

I will focus on the large improvisation ensemble *Grand8* with whom I have played since 2016. I will propose an analysis of the *Grand8* performances to demonstrate the importance of the

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performance in the improvisation practice, and how crucial it is to emerge new music. I will show the multiple factors that *Grand8* explores in its performances to ensure that new musical creations arise each time they stand before the audience. I will show, based on my improvisation practice with this ensemble, how musical actions and interactions cause the transformation of the sound flow and thus the performance.

I will start by presenting the *Grand8* ensemble. Then, I will briefly analyse the improvisation phenomenon through the complex system theories. For this, it will be necessary to analyse the elements that compose the FMI practice enlightening their importance in the performance.

Finally, I will analyse the musical production of the year 2020 and 2021, during the pandemic crisis, where the ensemble had to redefine its performances to continue the improvisation practice.

## The large ensemble *Grand8*

*Grand8* was created in 2016 by some improvisers with the aim of creating a space dedicated to improvisation with a large number of musicians. The ensemble follows the following lines:

- There is no supervisor
- The improvisers are from the South region of France with rehearsals in Marseille
- Theoretically there is no institutional attachment – it has changed when we were hosted by the GMEM, a national center for creation after a fire in our rehearsal room
- We want to improvise as a big ensemble
- It is not a place for diffusion (as there is no money involved) as (until 2021) *Grand8* musicians were never paid for the performances
- Of course as an improvisation ensemble it is a space of freedom, artistic freedom.

All members are professional musicians, aware that in the FMI the goal is to preserve the artistic pleasure of making improvised music in a big orchestra. It is important for the members to assume this posture even if frequently the members have to skip *Grand8*'s performances to attend to paid jobs.

Since the end of 2016 the ensemble has held a concert each trimester. From 2019 until the 2020 lockdown, they organized a concert each month in subgroups of musicians composed by the members of the ensemble, eventually with guests. It is important to notice that in these latter performances the idea of improvising in a large number of musicians is not mandatory. Instead, new small configurations of the ensemble musicians allow the search for new musical experiences. The musicians' availability for the ensemble and the regularity of its production generates a stable confidence and reliability in the performance. *Grand8* is currently composed by the following musicians and the respective instruments:

Bastien Boni (double bass)  
Catherine Jauniaux (voice and objects)  
Cati Delolme (voice)  
Ed Williams (guitar)  
Emmanuel Cremer (violoncello)  
François Wong (saxophones)  
Geneviève Sorin (accordion)  
Guillaume Lys (double bass)

João Fernandes (electronics)  
Laurent Charles (saxophones)  
Nicolo Terrasi (guitar)  
Olivier Bost (trombone)  
Philippe Lemoine (saxophone)  
Pom Bouvier (savage electronics)  
Raymond Boni (guitar)  
Sean Drewry (synthesizers)  
Sébastien Bouhana (percussion)  
Soizic Lebrat (violoncello)  
Vincent Lajü (violoncello)  
Vincent Roussel (percussion)

There are several activities parallel to the performance in this ensemble: organizing concerts and festivals, looking and applying for grants, creating a netlabel with the production of albums<sup>2</sup>, etc. It is important to mention these activities, as these extra-musical interactions are reflected later: in the performances as different affinities between musicians are created and within the public. For instance, elements of the jury of the grants we applied for have been present in the audience of the performances generating some extra motivation, tensions, etc.

## **FMI and complex systems**

A complex system is made up of something (anything, presumed identifiable), who in something (environment) for something (purpose or project) does something (activity = functioning). (Le Moigne, 1994) It is defined as a set of heterogeneous elements interacting with each other and with the environment. These systems are characterized by their non-linear interactions and whose overall behaviour cannot be obtained by simple composition of individual behaviours." (Aniorté, Gouarderes et Cariou, 2006)

The elements that we can identify that could constitute the complex system of FMI are: the musicians and their instruments (digital or acoustic), the public, the sound diffusion system (in electroacoustic music) and the performance space. From the above definition we can say that these elements (something) come together, in a performance space (a milieu) inserted into the environment to produce a concert, a performance or a rehearsal (in something, for something). They perform a multitude of actions (do something) to develop a creative process in the domain of sound – the musical improvisation. From this creative process results this ephemeral product of improvisation which will be the emerging consequence of these sound interactions.

In this article I will not develop the whole theory of complex systems and FMI (analysed in (Fernandes, 2019)), but I will describe the main characteristics that will help understand how new music emerges from the interactions between the musicians.

As stated before, a complex system is composed of heterogeneous elements that can themselves be complex systems (like the musicians as complex living beings). These elements are open to external influences: the chaos from the environment. The improvisers in performance have to be alert to all situations and integrate (or refute) them in their music. This is easily understood

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<sup>2</sup> <https://grand8.bandcamp.com/> and <http://grand8.org/>

while improvising in the public space where all sorts of interactions can take place. For example, musicians responding to birds singing.

In order to preserve its identity and autonomy, the system needs to possess self-organizing properties (through different types of interactions) (Varela, 1996). Feedback is an important feature for the self-organization of the system: each musician captures the variations of their environment and uses this information to change its functioning according to the performance (the system) purpose; this change will therefore affect the performance sound flow. Each musician will then adapt himself to the new sound flow, transforming it at the same time. Indeed, it will be in the envy of musicians to undertake this common purpose of a coherent creative process that this self-organization can take place. It also generates the uniqueness of each improvisation performance, where musicians in their interaction with the instantaneous sound flow of the system can self-organize in a unique and new process.

This means that the system must be able to evolve for the emergence of new music. In fact, complex systems are characterized by the emerging properties that result from the interaction of its constituents. The complexity of a system comes precisely from the unpredictability of these properties. The functioning of the system cannot be predicted or calculated by the individual functioning of the constituents, but it is in the collective behaviour that it exhibits that the emerging properties of the system arise.

We can then ask ourselves: what are its emerging properties and how does this happen? If we start from the definition given at the beginning, the goal of the complex system of FMI is to collectively build a process of musical creation. From the interactions between the constituents, a sound flow is created and, at each moment, the sound of the whole emerges. Sound proposals are sent to the system and the musicians adapt themselves to these proposals with new sound information which, in turn, feeds back to the system. The sound produced by each musician feeds the overall sound flow. At the same time, they depend directly on it, as each musician individually at his local scale has to assimilate this flow to successfully feed it with new information. This all is in interaction with the environment that can change this sound flow (Borgo, 2005). We can see that the evolution of the sound flow emerging from the system cannot be achieved by a single element, but that it is in the interaction with the other constituents that this flow is created and developed. Local variations will converge the sound flow, at every moment, in a new coherent state of the system.

### **Performance space**

This space is extremely important for the development of creative actions and it has an active role. The acoustics of the room changes the way the instrumentalist plays and his perception of musical information. The position of the instrumentalists on a stage, the position of the audience, the space available for each of these components, the contents of the room and the acoustic insulation can change the perception of the message.

The following paragraph describes a moment in a performance where elements of *Grand8* explore the performance space and try other kinds of interactions:

*François uses his sax holder to make noises as he twists it on the ground. Julie hits the stand with her hand. Everyone is making noises. Vincent plays with a harmonica and a flute. Wong searches for a place to make more noise than the floor and finds a wooden desk. Vincent L. scrapes the spike of his cello on the floor. This noise environment stays for a long time. François throws a chair on the floor with which he bangs his sax holder and this very noisy gesture makes most of the other musicians stop playing. A bass sound remains.*



*Another musician stands over a chair with a maraca like the Statue of Liberty and then throws the maraca to another musician, making him stop playing to grab the maraca. The maraca then passes from musician to musician producing the sound of the maraca and stopping the receiver. Cati takes a plastic bag from the rubbish bin and starts to grasp it on the ground. She then puts something in the round trash bin and makes it rollover the room.*

The question of performance space arises when we go beyond conventional places, such as the concert hall, for example the public space. We can use the concept of a sound milieu constructed by the listening operations as stated by Makis Solomos: “through the act of listening, [the listener, in our case the improviser or the public] interacts with a sound milieu, resulting in what we call sound. [...] sound is the product of the interaction between the listener and the milieu.”(Solomos, 2018)

We can say that it is the resulting (self-organized) sound flow that defines the sound milieu as a section of the environment. Ultimately, we could say that it is the sound in this milieu that defines the performance space, because this is the main purpose of the interactions produced.

And it is also through listening operations that we can separate the public from other people in the public space. It is their attention and implication in the performance that will define them as the public.

### **Public**

The public in FMI performances can have an important role in the creative process. Moreover, "the act of improvisation arises from the meeting of an improviser and an audience, and from the pooling of shared cultural codes which will make it possible to name improvisation a collective action." (Laborde, 1999) The first information the public sends to all musicians is their presence and number. Its presence changes the acoustic conditions, the heat, the absorption of sound.

Musicians play differently in front of an audience or in its absence, like in a rehearsal. Improvisers need to know how to interpret the information received from the audience. Musicians will then transform their music development process to a state that is satisfactory for the whole system. The performance receiver is therefore not a passive component of the system. His return is necessary. It is the interaction with the audience where the feedback plays an important role for the success of the performance.

*Grand8* tries other ways to relate to the public in order to listen to this type of music differently. If initially, performances were organized in the classical concert form, others kinds of configuration were tested. For example, with the musicians around the audience and vice versa, with the audience following the musicians in motion or with the instrumentalists wandering among the audience. Eventually, the interactions can be more than the listening operations but real musical interactions, by integrating the public sounds in the performance. For example, a baby talking in the audience can be imitated by a singer or a saxophonist.

### **Performance and improvisation**

When trying to define improvisation, performance has a very important place in this form of creation. Effectively, if we analyse its creation phases, we see that two phases are present: the musical training which confers the ability to play the instrument, where we can include the preparation of the instrument and the performance which is the generation of musical ideas and

development processes in real time in the interaction with the elements of the system and the environment (Fernandes, 2019).

The first phase is based mostly on the interaction between the musician and his instrument. The musician explores the affordances of the instrument, and in this repeatedly interaction, he embodies the instrument. With all the instrument expressive capabilities in his baggage, the instrumentalist will be able to successfully face all new situations in performance.

We could also add a third phase dedicated to the collective preparation - the rehearsals. In the case of *Grand8*, the ensemble has monthly rehearsals and does a 3-day residency each trimester (which are theoretically open to the public). However, this preparation is not dedicated to a specific performance. In fact, we could say the concert is part of a larger process of the *Grand8* project, where all the musical interactions are important to create its sound. But having this in mind, what is the importance of the performance?

It's interesting to note that inside the definitions of performance, we can almost find the definition of improvisation in it. Quoting Pradier: “[Performance] means commitment of the whole person, organic and mental, biological and cognitive, involved from childhood in constant interaction with the world on which he acts and which acts on him.” (Pradier, 2017) If we add musical interactions and the premise that there is no previously defined model, we basically have the definition of what improvisation is. Of these quotes, it is important to underline "the constant interaction with the world" of the performer, as it is fundamental to the performance's complex system. The generated ideas and the decisions are taken in interaction with accessible information from the performance context and they are based on individual musical, social and technical instrumental experience. The musician is always at a "state of alert" to face all the challenges and unforeseen events coming from this environment. Based on his life and musical past experiences the musician will react to the world's challenges.

## **Improvising in large number**

In collective improvisation, the musician's resources emerge principally in interaction with its colleagues. The individual aligns itself to the stimuli provided by other elements and sends new information back to the ensemble. This is indeed what makes improvisation unique, because each time all these interactions are different and cannot be reconstructed identically in other situations. I will mention two aspects that I consider central for the emergence of new music in improvisation in an ensemble with a large number of musicians: the initial conditions and the structural complexity. The beginning of a FMI performance gives the system a new framework and the way the performance begins will conduct the sound flow towards some organizational convergence of the agents (Furlanete, 2010). An interesting feature of self-organization is that the system can have very different results from small variations in the initial conditions. Structural complexity is defined by the number of constituents and the multiplicity of possible situations of each of its constituents in this group (Moles, 1972). In a large ensemble, there is a big unpredictability in the occurrence of an event caused by one of the musicians. The probability of interactions that take place in the performance depends on the number of its elements and, therefore, a greater number of musicians causes an increase in information circulating in the system, as the result of a probable larger number of interactions. Within *Grand8*'s activities, these two aspects are very clear when comparing the performances with the whole ensemble and the monthly sessions where subgroups of the ensemble perform (normally 2 to 5 musicians). The performances with the large ensemble can take quickly and more often completely different directions depending on these numerous and unpredictable interventions of the musicians. Besides the number of interactions, there can be a lot of different musical

situations: a variable number of instruments playing at a time, the type of instruments playing, their configuration on stage.

One of the important characteristics in musical improvisation is the common goal of the improvising musicians. In fact, there is always an agreement, a negotiation between musicians for the improvised performance to work, so that they act on the same principles, even if they are established during the performance.

In the case of *Grand8*, this common objective was established at the beginning of the ensemble and the subsequent experiences do not involve the construction on-the-fly of this agreement. Instead, the goal is now to explore the environment and the negotiations between the musicians and learn how to renew them. The following list shows how *Grand8* introduces noise into the system to evolve into new states, and thus new music:

- the arrival of a new member with whom the group must reorganize itself (increasing the structural complexity)
- voluntary "disorganization" in performance. *Grand8* always looks for new situations during its performance, in order to explore new paths and to organize itself differently. For example, in performance, musicians who can move, such as wind instruments, change their position or their axis (e.g. turning 90°) so that their listening position is different and thus privileging other interactions.
- the interaction with other artistic forms that questions the type of interactions between the instrumentalists and the resulting sound with other arts.
- the different contexts of each performance.
- new musical gestures

## **Grand8 and the pandemic**

At the beginning of March 2020 *Grand8* held his last rehearsal and "normal" concert. The ensemble began to question how they could continue to make improvised music in these new conditions.

The virtual modalities that many ensembles adopted, were immediately put aside as it was unanimous that the interactions in improvisation are not only about sound, but also bearers of intention with the physical and bodily presence. The presence in a common physical space.

The group experienced the lockdown musical practice in another way, not virtual, but perhaps abstract. On the day scheduled for the rehearsal, the 2nd of April 2020, precisely at 10:00 for exactly one hour, *Grand8*'s musicians improvised alone in their private space. The condition was to improvise as if they were performing together. What came out of this experience was that it sounded almost as if the players were interacting live.<sup>3</sup>

When some restrictions were lifted, the group began to experiment with new forms of performance such as playing in the public space. The group started to perform in the city parks. And from 2021 the *GrandAir* project has started with official performances sponsored by the city of Marseille. Several questions arise within this transformation, as not all instruments are adapted to play in the public space the same way they did in the concert hall. For example, an acoustic guitar in a noisy environment or instruments that require a power supply. Nevertheless, the guitarist can get closer to the public if she wants to be heard, or the electroacoustic musician

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<sup>3</sup> <https://grand8.bandcamp.com/album/avril-distance>

can use portable speakers. The issues of the influence of space and the audience that I mentioned earlier thus make perfect sense. The large ensemble has thus new challenges to discover and to self-organize itself in these new conditions, where the *alea* of the environment is "much closer".

## Conclusions

To conclude, I would like to say that the performance is an important step in the life of this large ensemble as the musicians transcend themselves during these moments with a very high level of concentration. Not having a supervisor, means as well that the improvisers are at all moments responsible for the success or failure of the performance. Nevertheless, this success or failure is a very personal feeling. Our experience shows us that musicians are frequently in disagreement about the success of the performance. Not having a supervisor means *Grand8* often has a collegial approach to their activities. By consequence, the performances are analysed and everybody can express their opinion about it. We observe that each musician has a different performance experience and it can be very contrasting. From these discussions, new ideas of exercises emerge for the next rehearsals and performances. With these exercises, improvisers will acquire new experiences and they will add them to their personal musical baggage that can be used on the following performances.

The emergence of new music in performance is almost immediate in a large ensemble like *Grand8*. Their structural configuration is frequently different from performance to performance provoking different kinds of interactions. The performances of this ensemble are held in very different places and the exploration of the context of performance is mandatory. The context of the performances is then always different and new music emerges automatically. Free music improvisation can adapt to almost every new situation, and new music can emerge from the deciphering of the context of the performance.

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