

Nemesis: Conciliating Opposites and Questioning Traditional Roles in Musical Creation

Manuel Brásio

FBAUP, i2ADS / IE-UL / Sonoscopia

Jonathan Silva

U.Aveiro / Inet-MD

Abstract

This presentation discusses a musical co-creation process conducted by three composers in direct collaboration with an instrumentalist, within a theatrical performance where music holds equal importance to text and dramaturgy. In this interdisciplinary context, the composer assumes the role of musical facilitator, actively embracing the creative decisions of the performer and dissolving the traditional hierarchy between them.

Inspired by practices such as John Cage's indeterminacy, John Zorn's game pieces, and Cornelius Cardew's open scores, the project emphasizes improvisation, collective negotiation, and active listening as essential tools. The traditional figure of the composer becomes diluted, giving way to a collaborative dynamic where composition is shared and shaped based on the performer's initiatives.

The developed methodology particularly highlights the importance of clearly and objectively describing sonic objects and gestures. To achieve this, it draws on theories of listening and sonic description proposed by Pierre Schaeffer and Denis Smalley, as well as Walter Thompson's practice of soundpainting. These approaches underscore the linguistic challenge inherent in communicating musical ideas, making active listening crucial for effective and democratic dialogue between composers and performers.

Finally, the presentation critically addresses the absence, within Portuguese music schools, of pedagogical models that transcend the binary perspective of composition and performance. It argues that collaborative practices represent valuable educational alternatives capable of fostering horizontal, experimental, and creative musical learning.

Introduction

We are a duo that inhabits the gap between two persistent labels—performer and composer—and no longer fit neatly into either. Our collaboration emerged within the crossover project *Nemesis*, where it was necessary to create music that could breathe with the scene and reinvent itself with every rehearsal. The founding gesture was both simple and demanding: to take the tension between opposites as a driving force rather than a problem to be solved. Composition and improvisation, rule and freedom, writing and listening coexist within a shared field of practice where difference remains alive without demanding synthesis.

The question that drives us is direct: how can collaborative musical processes dismantle

traditional hierarchies of composition and performance, proposing instead an ecology of listening and co-decision? We seek a terrain where authorship circulates—where those who propose and those who execute share decision-making—and where the score functions as a light structure: a set of minimal instructions that guides without fixing.

Our work situates itself within a genealogy that runs from John Cage and Cornelius Cardew to the practices of Pauline Oliveros, Brian Eno, and John Zorn—traditions in which composing means designing conditions, and the game of rules replaces the closed score. It also dialogues with the acousmatic thought of Schaeffer (2017) and the spectromorphological listening of Denis Smalley (1997), both of whom treat sound as a phenomenon to be observed rather than an object to be named. Furthermore, it aligns with the paradigm of *research-creation* as formulated by Robin Nelson (2013) and Emma Cocker (2023), where practice is simultaneously a method and a material of reflection.

This article describes the process that sustains a performance—an attempt to condense into six pages a journey of several years of experimentation that we are only now beginning to systematize within the context of our doctoral research.

We propose three main contributions:

1. A replicable protocol—our *game*—that connects sonic references, objective descriptions, and performative action in an iterative cycle;
2. The analysis of a performative case presented in Porto, which shows how the protocol translates into concrete choices—economy of means, polyrhythm built from few sounds, interplay with tape, and negotiation on stage; and
3. The pedagogical implications of a model that shifts music education from reproduction toward an inventive ecology of listening, decision, and co-authorship.

We write from practice to understand practice. *Némesis* asserts itself in this in-between space—where making, listening, and learning become inseparable; where error is material, sound is thought, and the work never concludes, it only keeps happening.

Method: Composing Improvisation

Process Design (macro → micro → macro)

The method unfolds in a continuous macro → micro → macro cycle, where each phase informs the next and reenters the previous.

Macro. The starting point is dramaturgy: we define atmosphere, internal rhythm, tension, and density. This layer guides the desired kind of sonic presence—the sound should converse with the scene instead of just illustrate it.

Sound moodboards. We then create listening panels composed of excerpts, recorded textures, and descriptions of acoustic qualities. They function as shared compasses, training collective perception and identifying transferable properties—duration, intensity, regularity, attack, decay. This is an exercise in *acousmatic listening* (Schaeffer 2017):

hearing sound for what it is, not for what it represents.

Micro. From there we enter the operative level—games of minimal rules, such as “use two sounds”, “organize a 3:2 polyrhythm”, or “transform regularity into irregularity on the third cycle”. These constraints select specific parameters and reduce indecision. The economy of means sharpens gesture and precision in negotiation: with few timbral elements, each variation gains weight.

The core idea is simple: misunderstanding as compositional material. Translating verbal language into sonic action is always imperfect—and that friction is fertile. Execution never fully matches description; deviation generates invention. Rather than correcting, we cultivate error as a creative operator.

The game repeats the cycle *describe* → *perform* → *listen* → *adjust*. Verbalization refines perception; performance returns nuance; and the operative lexicon expands with each round. A practical form of *aural sonology* (Thoresen 2007) emerges, where listening and speaking become one gesture.

Each session ends by returning to the *Macro*: the tested material reenters the dramaturgy and is evaluated by how it breathes with the scene. This consolidates mobile forms—open sequences, coherent yet always reconfigurable.

To compose improvisation, then, is to design conditions, document choices, and cultivate the deviation that transforms error into a tool and listening into a method.

The Game (Central Device)

We call *The Game* the operative core of the process—a method that turns listening into action and communication into composition. An example of the application of this method was the object of our presentation at the Transplanted Roots Symposium 2025. The structure remains stable, but the outcomes never repeat: each cycle is a controlled deviation, an improvisation within shared conditions.

- a. Individual listening. One person listens alone to a reference excerpt—instrumental, electroacoustic, or from everyday life. The goal is not to recognize the source but to perceive the behaviour of the sound: how it moves, transforms, and fades.
- b. Description. The listener then describes what was heard using a vocabulary of qualities inspired by Pierre Schaeffer: short/long, strong/weak, regular/irregular, dirty/clean. Instrumental labels (“xylophone”) are avoided in favour of operative adjectives (“short, regular attacks; dry timbre”). This verbal translation introduces the first productive misunderstanding—the space where listening becomes language.
- c. Execution. The performer interprets the written description in sound. The text becomes gesture, filtered through the performer’s technique and sensibility. Literal fidelity is irrelevant; what matters is the coherence between description and result, the honesty of the gesture in relation to the text.

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- d. Iterative adjustment. A collective listening follows, accompanied by brief negotiation (“more regular?”, “drier?”). The description is refined, the sound reworked, and the cycle begins again. The shared vocabulary gains precision: the group learns to *speak sound* and *hear language*.

Adopting the precepts of Art-based Action Research proposed by Jokela and Huhmarniemi (2019), this circuit creates continuous feedback—from individual listening to collective sound and back to description—transforming imperfect translation into compositional material. There is no hierarchy: the describer proposes, the performer interprets, and meaning emerges from the oscillation between saying and sounding.

The Game situates itself in the lineage of Cage (1967; 1978), Cardew (1967; 1971), Oliveros (1971; 1989), and Zorn (1987), where the focus shifts from the finished work to the collective behavior that produces it. Sound becomes a consequence of relation, not of individual intention.

It operates simultaneously on three planes:

- as a listening exercise, training attention toward qualities rather than names;
- as a light compositional system, generating material through description;
- as a pedagogical model, where error and hesitation become tools for invention.

Materials and References

The exercise presented in Porto began from three contrasting references: *Psappha* by Iannis Xenakis, *The Anvil Chorus* by David Lang, and *Kaiju Eats Cheeseburgers* by Sylvain Darrifourcq. These works served as points of departure rather than models, allowing us to extract operative principles and translate them into game rules.

From Xenakis, we drew interest in rhythmic architecture: moving blocks of energy, metric variation, and the tension between pulse and impulse—a minimal grammar that fuels the game.

From Lang, we absorbed the idea of obstinate repetition: steady pulse and micro-deviations, a formal austerity that turns precision into fatigue and sound into psychological space.

From Darrifourcq, we borrowed irregular physicality: hybrid timbres (wood, metal, electronics) and the play between predictability and chaos—a model of productive instability.

To these references, we added a pre-recorded tape of continuous noise—an element of disruption and listening. It introduces an alien temporality, one the performer cannot control but must negotiate with, establishing an *acoustic dialogism*: each gesture responds to an invisible presence. More than *style*, what we sought was *behaviour*: from Xenakis, variable density; from Lang, radical economy; from Darrifourcq, fertile imbalance. The material thus becomes research matter—the game converts listening into language and

language into renewed listening, each reference functioning as a pedagogical micro-world for exploring principles of relation and sonic attention.

Questions in Transit: What We Carry, What We Bring Back

Every performance is also a way of thinking. What we bring to the stage is not only sound but a set of questions about how creation, listening, and learning can happen together. What we bring back are new ways of seeing the process itself—questions returned, reformulated, sometimes unanswered. *Némesis* operates as a continuous field of experimentation, where practice and reflection fold into one another.

Investigating by Doing

The game confirms Robin Nelson’s principle: the creative process does not precede research—it *is* research. It does not illustrate a theory; it creates the space where theory and practice question each other. Each session is a laboratory of listening and decision-making, where ways of composing, negotiating, and reacting are put to the test.

Repetition with small variations reveals gestures that work and failures that think. In this sense, composing improvisation means thinking through listening—following the movement by which sound transforms into tacit knowledge, a knowing that manifests in the tuning of intentions.

Inspired by Schaeffer (2017), Smalley (1997), Thoresen (2007), Thompson (2006), and Oliveros (1989), we treat descriptive listening as a critical tool: translating sound into words means converting sensation into hypothesis. Terms like “short”, “clean”, or “irregular” cease to be aesthetic adjectives and become operative categories. Language serves to tune listening, and listening serves to tune language.

The Stage as Laboratory

During the performance in Porto, the audience reacted to our choice of references—Xenakis, Lang, and Darrifourcq—questioning their condensation into a short exercise. That response confirmed what the game seeks to expose: the value of creation lies in the process itself, rather than in the finished work.

The live session was more a demonstration than a concert; its value lay in the transparency of micro-decisions, in the audible misunderstandings and reformulations. What is usually called “unfinishedness” here becomes a methodological strategy: it makes visible the interval between intention and realization—the space where learning happens, we think.

The audience’s discomfort is part of the device. When the stage declares itself as laboratory, listening shifts—it becomes self-aware. This exposure of process aligns with a lineage from Cage (1967; 1978) and Cardew (1967; 1971) to Oliveros (1971; 1989) and Cocker (2023): to create is to rehearse uncertainty, to turn error and hesitation into instruments of shared attention.

Tools and Derivations

During the post-performance conversation, someone remarked that the game behaved like a form of artisanal artificial intelligence—a system of human prompts generating sonic responses, evaluating them, and reformulating. The analogy holds: both operate iteratively, exploring variation through minimal instructions.

But there is a crucial difference: presence. In the game, friction is physical: bodies translating language into gesture, listening negotiating error, hesitation turning into sensuous data. Technology may expand the field of experimentation, but the core remains human: risk, body, and relation continue to be the fundamental units of invention.

The project's future lies in deepening this collective intelligence. Next steps include documenting the process more carefully—through light scores and annotated videos—and extending the field of experimentation to pedagogical and community contexts, where different levels of sonic literacy can reconfigure the game. The goal is not to perfect a method, but to keep asking.

Synthesis

Between rigour and improvisation, between what is already known and what has not yet been heard, *Némesis* remains in a state of productive tension—a moving field of listening where art and education meet again, not to fix answers but to keep the conversation alive.

Conclusion

In *Némesis*, composing and performing have ceased to be distinct gestures: both inhabit the same circuit of listening and invention, where every decision reconfigures what the work can become. The piece does not fix itself—it happens. It ceases to be an object and becomes a relation, an ecology of presences in continuous transformation.

The research has shown that to improvise is to imagine, listen, and think, and that composing can also teach. The game protocol generated artistic material while simultaneously cultivating listening, decision-making, and co-authorship—rare competencies in both musical practice and formal education. Perhaps this is where a creative process can shed light into other areas of human activity by feeding on the potential of horizontal collaborative practices instead of hierarchical interactions.

The process dissolved boundaries between performer and composer, between rule and chance, between word and sound. What emerged was an ecology of practices where doing and learning blur together, and where error, listening, and deviation become engines of creation.

Némesis persists in that in-between—fragile, vibrant, and always adjusting—reminding us that to understand is not to master, but to listen to what is still coming.

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