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PONTIFÍCIA UNIVERSIDADE CATÓLICA DO RIO DE JANEIRO

UNIVERSIDADE CATÓLICA PORTUGUESA

AYA: THEATER AND EMPOWERMENT PRACTICES BY THOSE WHO
LEARNED TO TRICK DEATH THROUGH ART.

Tese apresentada a Pontifícia Universidade Católica do Rio de Janeiro para obtenção do grau de doutor em Literatura, Cultura e Contemporaneidade e à Universidade Católica Portuguesa para obtenção do grau de Doutor em Ciência e Tecnologia das Artes.

por

Lorena de Oliveira Chagas

DEPARTAMENTO DE LETRAS

ESCOLA DAS ARTES

(janeiro de 2026)



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Por Lorena de Oliveira Chagas

Sob orientação da Professora Doutora Rosana Kohl Bines e Professora Doutora Cristina Sá
E Coorientação do Professor Doutor André Baltazar

DEPARTAMENTO DE LETRAS

ESCOLA DAS ARTES

(Janeiro de 2026)

I dedicate this thesis to my ancestors, particularly my grandmother, Zulmira, who persevered in her education despite having to raise her children while finishing elementary school. I also dedicate this thesis to my mother, *Girlene*, who went beyond my grandmother and finished college when I was a kid. Finally, I dedicate this thesis to my successor, my daughter, *Aisha*, who was born in the first year of my PhD and now sees me completing my doctorate, almost six years later. Throughout my studies, time spent with her was often seen as a "delay" in completing my thesis. *Daughter, mother, and grandmother, here is our legacy: to us, motherhood is never the end; it is always a beginning!*

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George Chaves is another brother from another mother with whom I have shared a 25-year friendship. Thank you for helping me with graphs and design issues in this thesis.

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Gabrielle (Gabi Sementeira) é filha de Oxum, uma contadora de histórias afro-brasileira, e minha irmã nascida de outra mãe. Partilho uma amizade de 25 anos com ela. Obrigada por ser minha importante conselheira no Candomblé, religião e mitos afro-brasileiros e assuntos relacionados a este trabalho.

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Abstract

This dissertation investigates where and how empowerment emerges within theatrical practice, examining the processes through which both artists and spectators construct agency in contemporary conditions shaped by digital technologies, postcolonial tensions, and biopolitical and necropolitical structures. The study examines how artistic practices produce, negotiate, or inhibit empowerment. Grounded in a transformative paradigm that rejects claims to neutrality, the thesis draws from the author's situated perspective as a mixed-race Brazilian woman from the Global South, mobilizing decolonial epistemologies, which Home Bhabha calls the "third space of enunciation," and Afro-Diasporic symbolism such as AYA to frame empowerment as a contextual, historically informed, and culturally embodied process and artistically workable.

The transformative paradigm was chosen because, while ethical and scientific procedural constraints protect the research, they also limit access to information that could reveal the participants' identities. Adding a layer of depth, the researcher's self-reflection on how the experiments influence or alter her provides additional insight into the collective experience, albeit not a complete representation. This approach respects ethical considerations and data protection.

This dissertation examines five artistic projects developed during the PhD—three original plays and two theater workshops—through a cyclical, spiral structure inspired by Afro-Diasporic concepts. This research investigates how artists and spectators experience, articulate, and negotiate empowerment within specific theatrical contexts, using these artistic works as its primary field of inquiry. Through mixed methods that include quantitative and qualitative feedback, audience observation, and experimental tools informed by neuroscience, the study analyzes the conditions that shape agency and spectatorship in each project. It also reflects on how artistic creation can function as a space for resistance, reinvention, and self-determination within these practices. Rather than establishing universal conclusions, the dissertation draws insights directly from these artistic experiences, contributing to broader discussions about how theater may incite agency in the present and in the future, it helps imagine.

Ultimately, the thesis argues that empowerment in theater arises not from interactivity alone, but from ethical, aesthetic, and relational practices that cultivate autonomy, critical imagination, and collective possibility. Through the symbolic lenses of Ubuntu (to start) and Iroko (to end), the work affirms a cyclical and communal understanding of artistic research, where new futures sprout from ancestral knowledge and from the shared responsibility of artists and spectators in making meaning together.

Keywords: Empowerment; Theatre of the oppressed; Spectatorship; Artistic Research; Decolonial Theory; Participatory Theatre Practices

Resumo

Esta dissertação investiga onde e como o empoderamento surge na prática teatral, examinando os processos através dos quais tanto artistas como espectadores constroem agência nas condições contemporâneas moldadas pelas tecnologias digitais, tensões pós-coloniais e estruturas biopolíticas e necropolíticas. O estudo examina como as práticas artísticas produzem, negociam ou inibem o empoderamento. Baseada num paradigma transformativo que rejeita alegações de neutralidade, a tese parte do lugar de fala da autora como mulher brasileira mestiça do Sul Global, mobilizando epistemologias descoloniais, o «terceiro espaço de enunciação» e simbolismos afro-diaspóricos, como AYA, para enquadrar o empoderamento como um processo contextual, historicamente informado, culturalmente incorporado e artisticamente viável.

Esta tese examina cinco projetos artísticos desenvolvidos durante o doutorado — três peças originais e duas oficinas de teatro — por meio de uma estrutura cíclica e espiralada inspirada em conceitos afro-diaspóricos. Esta pesquisa investiga como artistas e espectadores experimentam, articulam e negociam o empoderamento em contextos teatrais específicos, usando essas obras artísticas como seu principal campo de investigação.

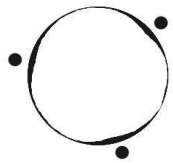
Através de métodos mistos que incluem feedback quantitativo e qualitativo, observação do público e ferramentas exploratórios baseadas na neurociência, o estudo analisa as condições que incitam a agência e a espectadorialidade em cada projeto. Também reflete sobre como a criação artística pode funcionar como um espaço de resistência, reinvenção e autodeterminação dentro dessas práticas. Em vez de estabelecer conclusões universais, a dissertação extrai insights diretamente dessas experiências artísticas, contribuindo para discussões mais amplas sobre como o teatro pode promover a agência no presente e no futuro que ajuda a imaginar. Em última análise, a tese argumenta que o empoderamento no teatro não surge apenas da interatividade, mas de práticas éticas, estéticas e relacionais que cultivam a autonomia, a imaginação crítica e a possibilidade coletiva. Por meio das lentes simbólicas de Ubuntu (para começar) e Iroko (para terminar), o trabalho afirma uma compreensão cíclica e comunitária da

investigação artística, onde novos futuros brotam do conhecimento ancestral e da responsabilidade partilhada de artistas e espectadores em criar significado juntos.

Palavras-chave: Empoderamento; Estética do oprimido; Espectatorialidade; Pesquisa em artes, Teoria Decolonial, Práticas Teatrais Participativas

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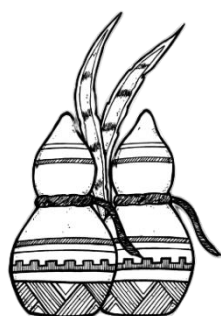
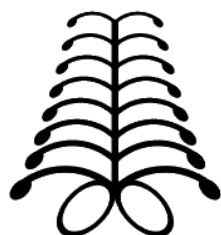
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Preface

Since beginning my doctoral studies, I have envisioned the research process as a perfect circle metaphor, starting, progressing, and concluding with no obstacles. Exploring the artistic process, autonomy, and freedom from oppression through art has proved to be a challenging and imperfect journey. Despite consistent effort, setbacks have occurred, and certain elements of the project did not survive. While not everything has perished, some aspects have not flourished as originally anticipated. Metaphors were necessary to describe this complex process.

The Adinkra symbols, originating from what is now Ghana and Ivory Coast are used by some African peoples to express aphorisms (Adjei, 2018). "Adinkra symbols carry the Akan traditional wisdom, philosophy and worldviews. In fact, Adinkra symbols are an example of the penchant and skill of the Akan's to set proverbs or verbal statements into visual form" (Adjei, 2018, p. 1). The symbols, once used at the funerals of leaders and kings, have been used by people of the Afro-diaspora as a way of reconnecting with their origins. The most famous of these, Sankofa, is a symbol of the Afro-diasporic struggle and means "go back and get it," in the sense that we must look to the past in order to build a better future.

I chose an Adinkra to metaphorize the process of my PhD dissertation: *AYA* (Figure 1). Like a fern (*Samambaia*), I took a step forward with each closing cycle, showcasing resistance to dry times, showcasing resilience to recreate myself in new spaces. Hence the title of this dissertation: *AYA*, the Adinkra that speaks of the ability to recreate oneself with no need the charity of rain or sun, without fear of reinvention as a way.

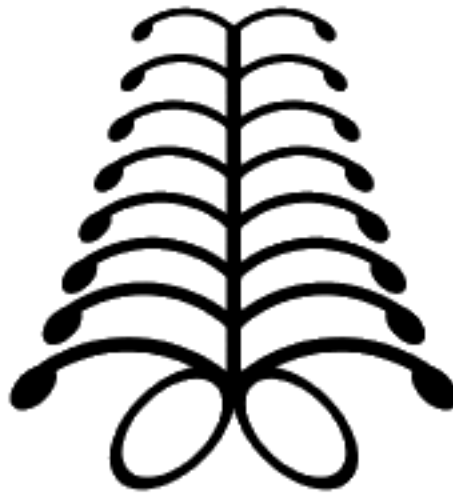


Figure 1 - AYA - Adinkra Symbol

Ferns reproduce through a cyclical process involving alternation of generations, in which spores develop into gametophytes that enable fertilization and give rise to new sporophytes. This reproductive cycle emphasizes continuity, regeneration, and resilience rather than linear growth. Similarly, the Adinkra symbol *Aya*, represented by the fern, signifies endurance, adaptability, and the capacity to thrive under challenging conditions. The biological characteristics of the fern thus reinforce the symbolic meaning of *Aya* as persistence and strength through renewal.

When I discuss reinvention without charity, I am also considering Paulo Freire in "Pedagogy of Hope" (2003) and his concepts of putting social change before charity. Or fight for a world with social equality, because in this world charity is unnecessary anymore. The concept of hope from Paulo Freire inspires me to act, create movements, spread ideas, and replant.

"Hope, as an ontological need, demands an anchoring in practice. As an ontological need, hope needs practice in order to become historical concreteness. That is why there is no hope in sheer hopefulness. The hoped-for is not attained by dint of raw hoping. Just to hope is to hope in vain." (Freire, 2003, p. 9)

In this way, this dissertation is written with hope, acting for movement, autonomy and freedom. Yet, it is written and organized as AYA's metaphor: circles that close, leading new circles of life, in a spiral. It goes back and forth, but always producing new spores, allowing new plants and forest to grow. It creates new ways and works of art to find autonomy in using science and technology of art.

Not only the Adinkras, from the Afro diaspora, are present throughout the text, but many Afro-Brazilian words and expressions as well. I combine metaphors and figures of speech from Afro-Brazilian culture, Adinkra, and Yoruba mythology (the last present in Nigeria and Brazil) to empower myself. This decision can be interpreted as empowerment, as it challenges colonial ideas and celebrates African culture, which has endured and thrived despite slavery, colonialism, and systemic violence against Black people in former colonies like Brazil.

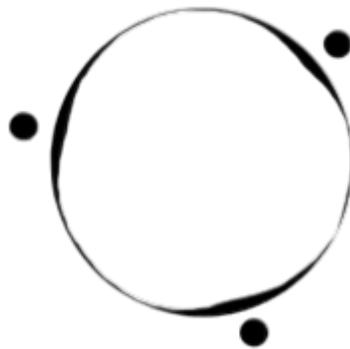
At least, this choice aims to show and reflect on my spores, to feel and reflect on the other spores that came to me, to offer the reader some ways to feel hope as a verb, the hoped-for.

After seventeen years since my bachelor's degree, including a master's and five and a half years of doctoral work (In two Universities), seeing the mapping of spores is a graceful way to conclude that Paulo Freire, Augusto Boal, and so many other artists and theorists were right. We could make small changes. In this study, all the little changes could be seen as a spore.

It is not just about Aya as a metaphor. This thesis is stitched together with scientific language, embroidered with ancestry. We need to look at it and see the layers of the different times that coexist within this writing, in which ancestry and contemporaneity go hand in hand.

It is a thesis that inscribes innovation in the ancestral, going beyond it without losing its origin. The name chosen to introduction Ubuntu, the Bantu philosophy (Khomba, 2024) means "I am because we are". I have come this far, but I am not alone - this work supports collectivism over individualism.

As evidence of said collectivism, every piece of work presented here was developed by a theatre company, they have all been imagined collectively, not individually. Cegonha - Bando de Criação is a company founded in Brazil in 2017, by me and the actor and puppeteer Miguel Albi Araujo. During the first shows, the scenographer, animator and photographer Renato Marques joined the company, being responsible for the visual coordination. In 2022 we moved to Portugal, and in 2023 Helena Matos joined us as a producer, stage assistant and creator. Like me, this company is interwoven with this work. And it is the research object and the safe space where artistic investigations had a place to grow. My self-investigation goes side by side with the storytelling of the collective.



1. Ubuntu¹: humanity towards others (Introduction)



[Playlist Ubuntu](#)

Todo muntu (Ser humano) nasce com um Sol interno, e é de responsabilidade da comunidade acender esse Sol para o nosso livre caminhar na Vida (Njeri & Rodrigues, 2021)

"Every muntu (human being) is born with an internal sun. It is the community's responsibility to ignite this sun so that we may walk freely through Life. — Kidenzi-Bakongo Philosophy" ²

¹ African philosophy of “ubuntu” — It’s a way of living that begins with the premise that “I am” only because “we are.” Which is a counterweight to individualism philosophical thoughts.

² [Free Translation]

Ubuntu, the title of this first chapter, is an african term, which challenges Western individualism by proposing an ontological and ethical model in which the "I" is inseparable from the "We," positioning relationally as the foundation of existence, knowledge, and moral responsibility. As an ethical paradigm for the research, Ubuntu suggests that knowledge arises through relationships and shared experience rather than detached, solitary reasoning.

Ubuntu is presented as a fluid ontology and epistemology with roots in Zulu ethics. It was later articulated by Desmond Tutu (Khomba, 2024; Taperero Fernando & Correia, 2025) as an ethical response to the social challenges of post-apartheid South Africa. Ubuntu emphasizes a relational understanding of people, based on "I am because we are," where individuals are formed by community connections rather than existing independently.

Ubuntu is an appropriate concept for this introduction, as it signals a commitment to interdependence, communal meaning-making, and recognizing that, like personhood, scholarship is formed in relation to others. The freedom here is also individual and communal.

Diving deep in the dissertation, this work stems from a structural unease. We start from the inescapable assumption that there is no theater without an audience (Desgranges, 2018). Beyond this assumption, we face a concept: the emancipated spectator (Rancière, 2009) which affirms

"The spectator also acts, like the pupil or scholar. She observes, selects, compares, interprets. She links what she sees to a host of other things that she has seen on other stages, in other kinds of places." (Rancière, 2009, p. 13)

The author argues that art is politically potent, but artists should not be didactic because viewers have their own subjectivity and can form their own understandings. So, does it mean the artist is free of political responsibility in their creation process? Is the artist forbidden from making art that inspires the viewer? Beyond the various ways of interaction between an artist and their spectator, which then could transform or even empower?

"Empowerment" is understood as the process of giving someone the power to make choices for themselves (Kaaber, 1999; Oxford University Press, 2025; Spreitzer, 1996) breaking the culture of silence about oppression, and raising the consciousness of the exploited about their oppression. (Boal, 2006; Freire, 2000; Singhal, 2001)

To develop the central idea highlighted here, I used the transformative worldview as a paradigm introduced by (Creswell, 2014) - which is suitable when the research question involves inequality and social exclusion, acknowledging the absence of neutral research and aiming to analyze critically the real-world impact and social change potential of the research, rather than studying a topic.

This research paradigm uses a mixed approach, incorporating mixed methodologies (quantitative and qualitative) and artistic techniques. This mixed approach, therefore, includes my personal history and research data to produce results.

My non-hegemonic background influences my conclusions, my research, and my use of transformative methods, and this is also true for my speaking place. Bhabha(1998) defends the third space of enunciation, a hybrid space where people from the colonized or non-hegemonical places talk into the hegemonic spaces, in a hybrid form of being crossing two worlds and always different local of culture than the one-place person. Also, in the speaking place (Ribeiro, 2024)

"The speaking place is a concept that allows us to perceive that there is no neutral, universal place that everyone occupies in the same way. Each subject occupies a place in society, and this place determines what they can say and how they can be heard." (Ribeiro, 2024, p. 11)

This dissertation employs the transformative paradigm and an iterative approach, examining my personal transformation, along with the collected data, while considering the context of my speech, the construction of a negotiation space, and the concept of a third space of enunciation.

Because of these first considerations, an issue appears frequently for this research: Could my artistic work potentially influence my audience? What exactly does this question refer to? To the form of the artwork, to how I relate to those who attend me, or to the ethics of the artistic creation process?

As a digital native (Prensky, 2001), my research will therefore reflect the period in which I write and how the internet's evolution affects daily life and the artistic creation process. This includes everything from the promise of democratizing information to the latest analysis on the subject. This work will explore what digital mediation will produce. Prensky (2001) defines "Digital Natives" as people who have grown up surrounded by digital technologies such

as computers, video games, and the internet. Because of this constant exposure, they think and process information differently from previous generations, whom he calls "Digital Immigrants." Digital natives are used to accessing information quickly; they prefer to process information in parallel and multitask, and they like graphics instead of text. For them, technology is a natural part of life, not something external to be learned later. However, it is important to remember that access to technology varies globally, such as in European countries with differing levels of access, and even among different groups within Latin America.

Regarding these different levels of digital access, a careful look of theories of pioneered concepts by Michel Foucault (1978) and Mbembe (2003) seems to add to this discussion. Foucault (1978) introduced "bio-politics" and "biopower" defining it as "that domain of life over which power has taken control" (Mbembe, 2003, p. 12). Governmental rationality here is focused on managing and controlling life and populations. Achille Mbembe (2003) therefore expands this in his notion of "necropolitics," considering biopolitics insufficient currently, considering several ways in which:

"Weapons are deployed in the interest of maximum destruction of persons and the creation of death-worlds, new and unique forms of social existence in which vast populations are subjected to conditions of life conferring upon them the status of living dead. where sovereignty is ultimately the capacity to decide "who may live and who must die." (Mbembe, 2003, p. 40)

In *The Universal Right to Breathe* (Mbembe, 2021) Mbembe argues the pandemic exposed the unequal distribution of vulnerability: racism, poverty, environmental destruction, and political violence already suffocated some groups. Breathing, for him, is both a biological necessity and a universal right: "Breathing is that which we hold in common." He proposes a new political ethic grounded not in sovereignty but in the shared condition of respiration, as the basis of a universal right to exist together.

With these points and the concept of "digital natives" in mind, the central research question of this dissertation is: *In an era defined by bio-politics and necro politics, what effect does digital technology's role in art have on the art itself, as well as our aims to empower audiences?*

Since there is no neutral author or straightforward answer, the work I present here is above all asking and re-asking these questions in different artistic practices, comparing and learning from each answer found in its different forms. Rather than being definitive, the answers

encourage new attempts. The process is iterative; time is circular. Each line negotiates the speaking place, seeking in the present to reframe the past to hope for new futures together.

The PhD process began with studying literature, culture, and other subjects at PUC-Rio in Brazil, then continued with a doctoral exchange at the School of Arts of Universidade Católica Portuguesa, resulting in a double-degree doctorate. The experiences in Brazil (Rio de Janeiro) and Portugal (Porto), world events, wars, pandemics, personal and geographical changes and crossings, and the joint doctoral program with dual degrees continued to shape the organization of this thesis. A seemingly chaotic form defines the iterative process. Ascend and descend, then repeat in a comparable location, but a different one, before moving on to a new spot. Figure 2 illustrates a spiral to represent the iterative process.

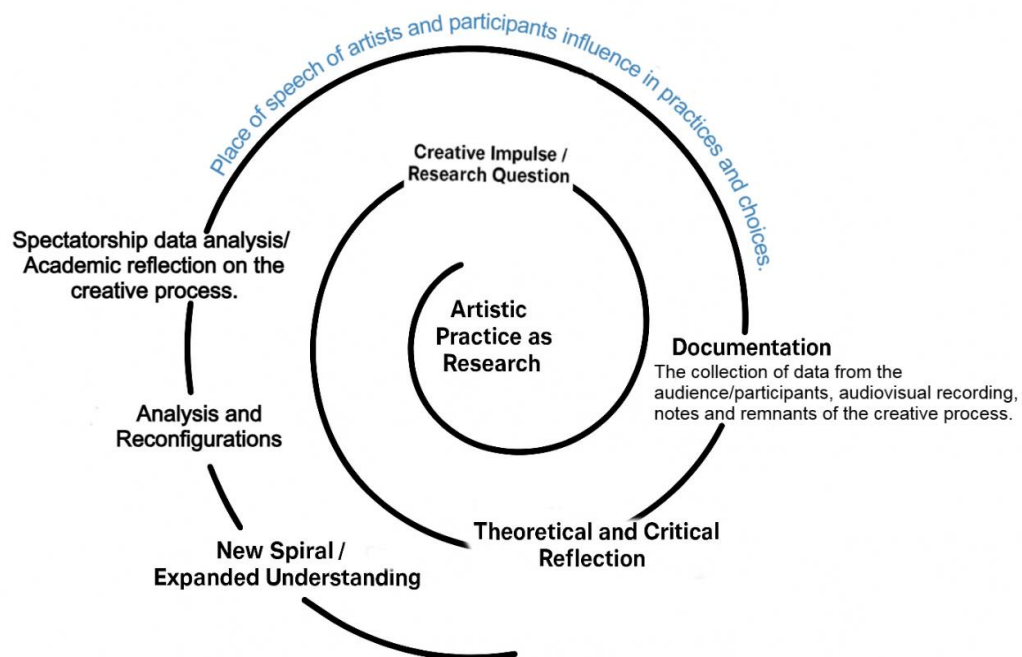


Figure 2 - Spiral Graph describing research process

Last but not least, as is to be expected since this is a dissertation in arts, artistic practice will also be present here, not only in the facts and events reported but also in the thesis's weaving itself. From my speaking place, I present this dissertation to you as a feast. Each chapter is a dish to be read, tasted, heard, and felt. Playlists, poems, symbols, and images accompany the academic text in each chapter. As well as it happening in my original language, Brazilian

Portuguese, which Indigenous and African words always accompany European words. It hopes to push the limits of the strictly academic form without romanticizing the limits of the strictly artistic form.

The central issue unfolds throughout the thesis not as a fixed point of arrival, but as a generative field that expands and transforms through each cycle of artistic creation and reflection. As stated before, drawing thoughts about the iterative process resulted in a spiral. The research develops through a spiral movement that mirrors the dynamics of artistic practice itself — a continuous oscillation between doing and thinking, creating and analyzing. Rather than following a linear path, the investigation expands through successive cycles of experimentation and reflection.

1.1. Cycle 1 - Rooting the Ground: Speaking Place.

Returning to an aspect already mentioned, this dissertation was written to identify a statement about the relationship between fundamental concepts: theater and empowerment, interactivity and technology, in a spiral movement. The cross-referencing process was not inherently challenging because of the complexity of the material, but it was a complex piece of research in its own right. It was transdisciplinary, incorporating elements of transgression and poetry, as well as the crossings of the surrounding world, which, in this case, had a profound impact on the outcome of the research. Geographical, political, gender, and racial realities also played a role in this dissertation. Seeing it makes a part of my history.

Going back to Bhabha (1998), as a mixed-race woman from an ex-colonized country, my position as an academic is always a matter of negotiation, in the "third place" of enunciation. The author considers the ambivalence always present in the combination of the general subject of a proposition and the specific subject of enunciation as a precondition for the articulation of cultural difference, a strategy of resistance to the subalternity of colonial enunciation. In Portuguese or English, I am always an ex-colonized woman writing in a language that is mine, but in a certain sense, not entirely mine, as with the colonizer-writer. Therefore, I am constantly navigating the boundaries of what is acceptable (Fanon, 2022). I write at the limits of language, using it to decolonize my work and practice, and because it is my place in these circumstances.

Regarding these observations, this written language may contain words in Portuguese from Bahia or African and indigenous words legacy. It is not a typo or mistake; it is exactly my place of enunciation.

1.2. Stitching the Map: Research Threads and Theoretical Frameworks.

Since graduating in Performing Arts, I have continued my research into the relationships between art and interactivity, art and digital technology. During my bachelor's degree, I participated in a research group on video game dramaturgy, and during my master's degree, I delved deeper into the creation of artistic plays that had the interaction of a video game, testing the limits of the spectator's choice and the performers on stage.

From my place of enunciation, the concept of "Gambilogia". (Paulino, 2012) add a layer of comprehension about technology uses in Brazil. Gambiology is the science of "gambiarra" which is the "Brazilian cultural do-it-yourself practice to solving problems in alternative ways or giving unusual functions to objects, a slang word for technical makeshifts and kludges" (Paulino, 2012, p. 127)

It's not a romanticized version of how we create, even is a recognition of our cultural creativeness. Rather, it's a way of empowering ourselves with the means to produce technology creatively, albeit in a crooked way, in order to produce art, as "digital natives" from a global south, that we are. Although it resolves issues, it often steals our time. Most of the time, it demands considerable effort to replicate something that is already easily accessible globally.

The aesthetics of the *gambiarra*, with trial-and-error cycles, of amplifying the usability of objects, technologies and concepts, is also present here in the writing style. Keeping this style is more than a choice, but a way of honoring my process until here.

In the present dissertation, I bring three plays that I wrote and directed and two theater workshops that I did during my Ph.D. work. This five-practice research provides a broad framework that connects these and other theater practices to science and technology, empowerment and oppression, artistic process, and audience feedback.

This recurring process sees art-based research exploring similar questions using diverse projects, practices, and approaches. This dissertation attempts to draw out the conclusions by stitching the answers together, one by one, with art and science.

Considering the concept of Empowerment already discussed here, as the process to enabling individuals to make their own choices, break cycles of silence, and recognize the forms of oppression they face. Kaaber (1999) says that we can measure and assess *resources and enabling conditions*, and *achievements and goal attainment*, two important aspects of empowerment, only indirectly. We can directly measure the third aspect, *agency*, which is the ability to identify goals and act on them. When we discuss measuring empowerment in this study, we are looking at how we gauge the participants' ability to act independently, their agency. Considering that empowerment is always contextual, scope research is always necessary.

Augusto Boal's Theater of the Oppressed (Boal, 2006) has the Aesthetics of the Oppressed, defined as "a project about helping the oppressed (...) to create their artistic metaphors of their world" (Boal, 2006, p. 39) It is a set of theater techniques designed to empower both artists, non-artists and spectators by providing the means of artistic production to oppressed individuals, using art as a tool to raise awareness about oppression.

Theater of the Oppressed has gained global recognition, and engaged communities widely use it. The Forum-Theater, one of its key practices, invites the audience to participate as actors – called as "*spect-actors*".

This technique is strongly associated with Paulo Freire's Pedagogy of the Oppressed (Freire, 2000). Augusto Boal was significantly impacted by Freire's thinking. His adaptation of Freire's principles within the arts led to the creation of a space for participants to engage in critical analysis of their reality and propose radical changes through experimentation. The Curinga (Joker) plays a vital role as a mediator and pedagogue, ensuring dialogue and active listening are integrated into every stage. As Conceição mentioned:

"Falar de opressão não é uma missão fácil, portanto, somente num local seguro e respeitoso, onde todas as ideias são levadas em consideração e a escuta seja priorizada, é que as histórias de opressão para a construção dos espetáculos poderão ser compartilhadas e a injustiça combatida". (Conceição, 2016, p. 163)

(Discussing oppression is not a simple task. Only in a safe and respectful place that considers all ideas and prioritizes listening can people share the stories of oppression to build and address injustice)³.

Characterized by deepening and spreading, the Theater of the Oppressed moves perpetually, like a tree (Figure 3). The principle of the organization is its core identity, securing its continuity and permanence. History, which is humanity's accumulated knowledge, fertilizes the soil around the Tree. We can define philosophy as the continuous pursuit of comprehension regarding the significance of existence and human coexistence. It defines politics as the science of life in society, and they consider participation a fundamental necessity of citizen action. The core principles of ethics and solidarity are inherently at odds with injustice, economic exploitation, colonialism, imperialism, prejudice, and discrimination.

Throughout the Method's history, the Tree's diverse branches symbolize various techniques that responded to the specific demands of objective work. The performance includes Newspaper Theater, Rainbow of Desire, Legislative Theater, and Invisible Theater. The techniques considered fundamental to the overall framework — namely, Image and Forum Theater — are in the trunk. With the array of exercises and games, they serve as the foundational element of all Theatre of the Oppressed work. At the treetop, the broadest branch is where all the techniques must converge. It serves as a conduit to societal integration, representing both tangible and ongoing social initiatives.

³ [Free Translation]

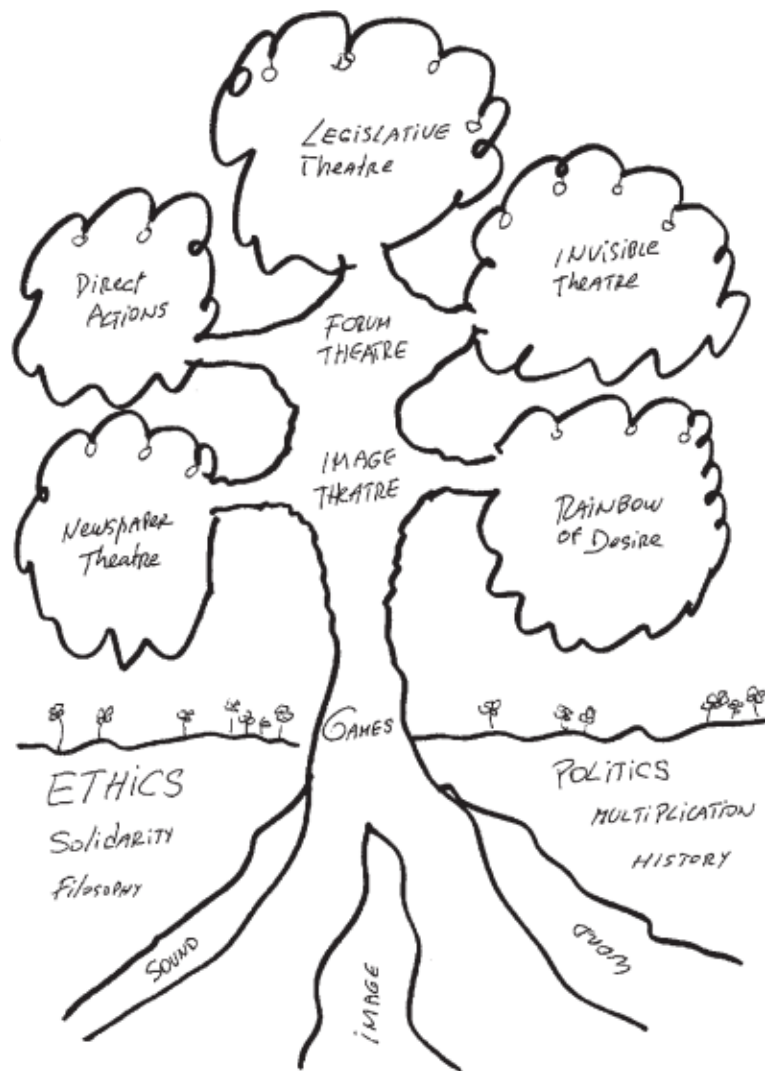


Figure 3 - Theater of the Oppressed Tree - (Boal, 2006, p. 3)

The crossing of the Method's evolution is how people view The Aesthetics of the Oppressed, the final stage of Augusto Boal's work. Aesthetics, as the essence of form, provide sustenance to the entire tree.

The process of evaluating change using collaborative, participant-focused methods align with Freire's view that education, much like research, is about shared exploration.

One plant sampling: theatre's power to transform—both artist and spectator—has fed my practice from the start. My first gamble during my master's was a question: could the interactivity of video games in theater dramaturgy grant the spectator levels of autonomy and empowerment? That inquiry deepened, pulling me into the ethics of creation and the intricate web linking theater, digital technology, and neuroscience.

Another sampling is about my own history. I was a young adult, twenty-three years old, when protests began in my country in 2013, addressing many popular and social issues, which then led to events such as the 2016 impeachment of President Dilma and the twenty-year freeze on health and education investments in the same year, or the end of the Ministry of Culture in 2016 - 2016 and 2019-2023 (Freitas & Demier, 2023)

In this way, my work as an artist has a complex relationship to the political moment in my country. All the issues of creating and studying theatrical interactivity, without less investment, without access necessarily to equipment, could be like the cycle of reproduction of the fern (Samambaia): spreading spores, and rebirth, and restarting with the resilience of being, without dependence on sun or rain. Choose hope over fear. Striving for access to art technology means of production without using it blindly. These contexts will also affect this dissertation.

Digital natives, too, might find digital technology to be oppressive. Referring again to (Mbembe, 2016, p. 2), we are living in a new age, where the humanistic idea does not exist anymore. In this new age, we could control individual consciousness, and from this control will arise a new human "created through and into digital technologies and computational means" (Mbembe, 2016, p. 2). In the age of biopolitics (Foucault, 1978; Mbembe, 2016), we may be technologically involved, even if we do not know how to use it.

Perverting machines might be the main point to "recriando a seu modo a apropriação tecnológica" "recreating in their ways the technology appropriation" (Machado, 2005)⁴; creating strategies of interactivity focused not on the combination of everything, but on the dialog between the program and the machine, where the human proves himself (Bragança de Miranda, 1998). In this sense, the use of the newest digital technology is probably not mandatory. However, knowledge about how to use that in art could be a potential spore of empowerment.

1.3. Dissertation structure

Beyond the already explained spiral structure, where circles close and create new ones; an Afro-Diaspora expression represents each circle, previously called a chapter as a metaphor. Using a symbol to describe it, I also created some playlists for each expression, giving the reading rhythms, soundscape and feelings. We started with a preface and this introduction

⁴ [Free Translation]

“Ubuntu” which is central to showing the broad scope of this dissertation, encompassing authors, theories, epistemologies, and methods that relate to my work. It examines the connections between art, science, technology, and ancestry, and considers the significance of their metaphors.

Each following chapter/circle connects iteratively with the others, although you can read them individually. To the end, a subtle invitation emerged: "Let's greet Iroko," using the Yoruba term for the Orisha of time and ancestry, which reflects the cyclical understanding of time in that culture, signifying the end of work and the beginning of new cycles. Then, I am presenting a summary of the following chapters.

"SANKOFA - The Interactive Theater Play "Makupuni" - Looking Back as the First Step" –

Sankofa is the Adinkra proverb that literally translates to "go back and get it" or "it is not taboo to go back for what you have forgotten (or left behind)". To Adjei (2018) Sankofa is a phrase that encourages learning from the past to inform the future, reaching back to move forward. With this proverb in mind, I have been outlining a framework about the play Makupuni (Cegonha - Bando de Criação et al., 2017) the interactivity, the motivations, and data from the audience. Regarding my history with interactive theater plays (including in Master's studies), Makupuni is the first play in my career that focused not only on interactivity but also on the political engagement power of this. The initial results from the show emerged, prompting the first questions that inspired this doctoral project. Part of this discussion was published in “Makupuni – Could a theatre child’s interactive play provokes audience politicization” (Chagas & Sá, 2022). Therefore, to look back is to review the present and arrange accordingly future.

The first analysis of Makupuni inspired the fresh approaches to the audience in the second part, analyzing the audience in the new show Makupuni, presented in Portugal in 2023. This first chapter is so important in outlining the reflection on audience measurement and empowerment, the major subject in this dissertation.

"ANANSE NTONTAN - Audience methods",

Ananse Ntontan is an adinkra that represents a 'spider's web', represents wisdom, creativity, and life's complexities. With this adinkra as a framework, the third chapter thinks deeply about audience measurements for politically engaged theater productions and how artists could think about the audience without leaving the individual subjectivity. In this chapter, we create a list

of experiences and construct a test model for implementation. Mixing a complex state-of-the-art about the subject and analyzing a workshop-focus-group realized to discuss and practical experimentation. Part of this discussion was published in “ESPECT-ATRIZES: cruzamentos entre Teatro do Oprimido, Neurociência e Estudos de Recepção” (Oliveira et al., 2024).

"AYA - I Am Not Afraid of You"

This is the main experiment with participants in this research.

We begin by sketching the landscape of fear. How fear works in our body and in our creativity and how the theater workshop "Aya" is present in this research arising from the fear issues. Second, the research explains how the theater-workshop Aya developed and applied the tools from the last chapter, and it also explains how the researchers collected the data, the results and its discussion. The results, discussions and reflections of this procedure were published in “REHEARSING EMPOWERMENT: The AYA workshop as a catalyst for change” (Chagas et al., 2025).

The workshop drew from the theater of the oppressed techniques and with external observations, neurosensory tools with stress and cardio frequency data, beyond surveys distribution before and after the workshop and a follow up after one month. The exploratory study seems promisor showing the potential of theatre of the oppressed in creating a safe space to rising oppressions and search empowerment.

"ASHANSU - The Play Abaeté" –

Ashansu, a quality of Obaluaê, is not only mythological but deeply artistic—rooted in a Bahian song where Afro-descendant languages pulse within Portuguese lyrics. This resonance shaped *Abaeté*, a theatre play I wrote, directed, and performed in Portugal during my PhD. Whereas Aya gives more data from the engagement and empowerment of participants, this chapter expands my personal art-investigation and my political and empowerment perceptions during the process. This chapter discusses my artistic process in this creation. Observing spores leads to self-empowerment. In the spirit of Afrofuturism (Elia, 2015), our story does not succumb to dystopia—it dares to dream of utopia, where the Mari (and me, and other black and mixed-race women) of today, and of tomorrow, continue to rise. The play was presented in several cities in four different countries: Portugal (8 cities), Brazil (2 cities), Norway and

Angola (1 city each). In Portugal tour, it was collected a briefly data from the audience which is also discussed in this chapter.

"The Ibejis are tricking death."

This chapter explores how childhood, art, and play can be powerful forces of resistance during times of war, crisis, and systemic violence. This was one of the themes that I first explored in my PhD trajectory and it has been updated throughout the process. The play, that should be explored as a case study, began in my supervisor's discipline and inspired some publications better explained along the text. In certain way, this chapter's themes add discussion layers to the previous ones, in a way that it presents works for children and for young adults.

Drawing from Afro-Diaspora cosmologies, the chapter revisits the myth of the Ibejis—divine twins who tricked Death with joy and rhythm—and the playful, hungry nature of Exu. It argues that imagination can delay endings and reconfigure time. The chapter places these myths in dialogue with contemporary realities, such as police violence against black children, refugee crises, and the pandemic. This raises the ethical question: Which children may eat, play, and live first? Theoretical framework redefining childhood as a disruptive and radical epistemology where repetition, narrative, and play embody survival, critique, and world-making, instead of innocence.

The case study "Qual é Meu Nome, Mamãe?" (What's My Name, Mom?), created by me and Cegonha Bando de Criação, illustrates these ideas. This puppet theater play presents the story of a boy and his mother, who must leave their home. It addresses the themes of migration and refuge through poetic imagery, puppetry, sound design, and digital projections. Drawing inspiration from refugee testimonies, Photos, books, and theater image games, the play avoids stereotypes, highlighting children's resilience and creativity instead. By intertwining play with scenes of displacement and violence, the play affirms art's capacity to humanize, resist erasure, and envision futures. Like the Ibejis' drum, theater becomes a means of "tricking death," safeguarding children's right to play, survive, and *reinvent the world*.

"Let's Greet Iroko"

Iroko's concept concludes the work in a circular conception of time. Many Africans, as well as Brazilians who practice Candomblé and Umbanda, consider Iroko, a tree, to be the Orisha of time. The concept of time as a circular entity depends on the idea that events have a

specific temporal occurrence, interrelated with ancestry and future in the same circle, not like a closed and rigid destination, but thinking that things done now could change the future and things in the past that still reverberate in the present. This perspective allows us to draw conclusions about work and to plan new questions.



2. SANKOFA⁵ - The Interactive Theater Play "Makupuni" - Looking Back as the First



"If you do not know where you are going, stop and look back. At least remember where you came from".
(African Proverb)

⁵ SANKOFA is an Ashante (or Akan) Adinkra which means learn from the past to build the future.

Sankofa is an important African adinkra. This symbol comes with the meaning that it is not taboo to go back and bring what you forgot in the past. Artists and activists have used this Adinkra to create an identity for African-American and Afro-Brazilian people, Black people from the diaspora, and some African movements. (Adjei, 2018; Mugumbate, 2023)

This Adinkra could encircle this chapter, but it is also a small summary of the iterative nature of this work. Having returned to get and create new things, and then returning, but not to the same place. Throughout the whole work, the chapters brought something from before to explain more and go on.

Here, the point in the past is the interactive theater play (Cegonha - Bando de Criação et al., 2017) Having explored a theater director's approach to interactive plays during my Master's program, and also participated in a Theater of the Oppressed workshop, I found myself continually engaged with the concepts of empowerment, the Theater of the Oppressed, and interactive theater, although I lacked the opportunity for detailed research. Following my Master's in the arts, me and the collective created Makupuni, the inaugural production of my theater company.

2.1. *Cycle no.2* - The play Makupuni

Makupuni is a theater play for children created in 2017, one year after the impeachment of President Dilma Rousseff and during the early stages of Brazil's political crisis. That historical moment, marked by social division and democratic tension, inspired us as artists to explore through performance the meaning of democracy and collective decision-making. The stage thus became a laboratory for examining political participation, ethical choices, and the fragility of social structures.

In its narrative universe, *Makupuni* freely draws inspiration from Tim Burton's short stories in *The Melancholy Death of the Oyster Boy* (Burton, 2018) where the characters' physical traits materialize their inner characteristics and emotional states. Burton's stories frequently end in tragedy, a common feature in his works. Inspired by this poetics, the play imagines Makupuni—an island in a distant future—where human beings coexist with technology in a controlled, artificial environment. The island allows its inhabitants to live in diverse and normally hostile places, such as underwater regions, high altitudes, or areas

saturated with pollution. In this society, babies are factory made according to their parents' desires, "perfectly tailored, adjusted and educated" to live in their designated environment.

"E aqui, o centro! Aqui, onde todas as crianças são fabricadas, e a tecnologia é pensada.

N1 – Em algum lugar, Makupuni é o novo, a tecnologia e o Futuro!

N2 – Às vezes o humano...

N1 – Sim, às vezes, o humano.

N1 e N2 – No mercado, a melhor referência: encomende a sua criança, e nós vamos fabricá-la com tecnologia e ciência. Sua criança nasce sob medida, perfeitamente educada, como nós, adaptada!

(Atores constroem o muro com as caixas.)

N1 e N2 (mostrando os caminhões de entrega) – Venha para Makupuni! Aqui você tem uma vida perfeita, tecnologicamente pensada."

(excerto do texto teatral Makupuni)

"Here, the town! Here, where all children are created and technology is designed.

N1 – Anywhere, Makupuni is the new, the technology, and the future!

N2 – Sometimes it is human, too.

N1 – Yeah... sometimes it is human, too.

N1 and N2 (showing the Market) – Our market has the best options. You can order your child, and we will make it with knowledge and technology. Your child will be born perfectly tailored, educated, and adapted, as we were.

(The actors build a wall with the boxes.)

N1 and N2 (showing the factory trucks) – Come on! Come to Makupuni! Here, you'll have a perfect, technologically designed life."

(excerpt from the theatrical text Makupuni)⁶

A flowchart and a map (Figures 4 and 5) were created during the production process to help the artists build the narrative universe and design the possible interactions with the audience. The flowchart (Figure 5) organizes the narrative's interactive logic, while the map (Figure 4) defines the fictional geography of the island. On *Makupuni* Island, there are five main areas: the North, characterized by swampy and contaminated lands; the East, with flying houses for the lightest inhabitants who can live above the clouds; the West, where tiny houses allow underwater life; the South, a desolate and polluted region; and the Center, where the factory produces babies designed to live in each of these environments. (The South, which receives the factory's waste, remains a barren area, though technologically transformed humans can still survive there.)

⁶ [Free Translation]



Figure 4 - Makupuni's Map

The stage design combined technological and analog materials to represent this world. Cardboard boxes were used to construct the factory warehouse, where the employees, simultaneously workers and storytellers, guided the audience through the island's universe. Through video mapping projected onto the boxes, they reconfigured the scenery live, turning the space into different landscapes as they moved the boxes across the stage (Figure 7-8) on page 40 and 42, respectively.

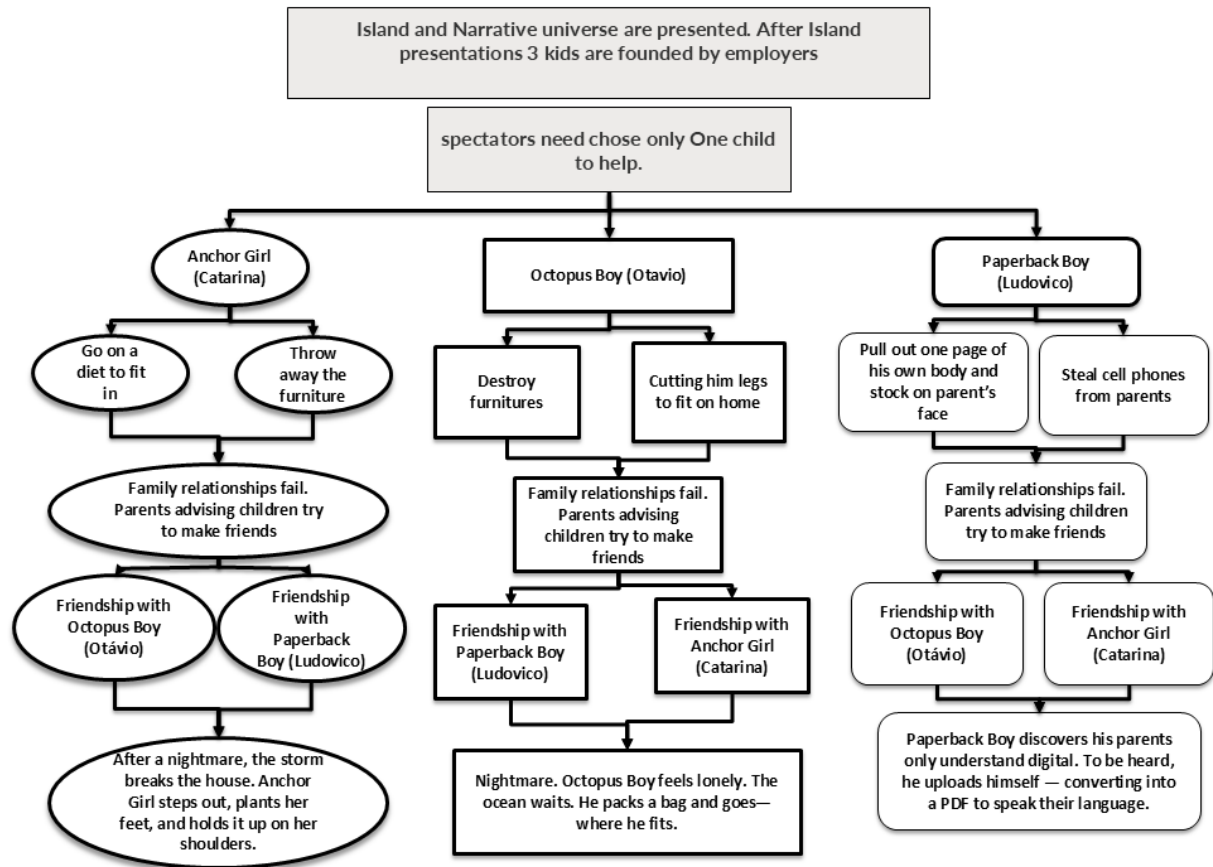


Figure 5 - Flowchart - Makupuni storytelling

The script is divided into two main parts. In the first, the workers proudly present the island, its organization, and its "perfect" system of production and life. In the second, an unexpected situation emerges: several children are returned to the factory by their parents because they do not meet expectations. This discovery generates confusion among the workers, who do not know how to proceed. The narrative shifts from exposition to ethical confrontation.

At this point, the play introduces its interactive dimension. The workers ask the audience to help decide what to do, initiating the first of three voting moments. The audience must choose which of the three returned children will be rescued—Otávio, Catarina, or Ludovico. From this choice on, the story unfolds differently depending on the collective decision.

Having assessed the fictional circumstances, the audience learns that the parents abandoned their children for not fitting the island's standards, while the workers realize they can only save one. This first vote therefore poses the fundamental ethical question: *How should we decide who deserves to be saved?* Although the spectators may wish to save all the children,

they are forced to face the impossibility of such an action—a metaphor for the moral limits of choice in real life.



Figure 6 - Makupuni Initial scenes when factory workers were explaining what Makupuni is. © Rafael Bisbis.

As the narrative continues, the chosen child's story develops, while the others remain in the background. For instance, if the audience selects Otávio, they follow his difficulties in adapting to family and school life. Through brief updates, they also learn that the other children face similar frustrations. This narrative structure—partially fixed, partially open—was organized through the flowchart (Figure 4), which visually represents the paths of the story. These transformations cause the stage to shift from one region to another, for example, from the bright industrial center to the polluted South Island (Figure 6 to Figure 7).



Figure 7 - Makupuni - Set Design of the South Island © Vida Oliveira

Then, when the child has been chosen and the stage is set, emotional tension rises in the following scenes. New family moments in life are full of rejection or failure at his-her home, and once more, the audience must vote, this time between two harmful alternatives: *self-harm* or *violence against the environment*. Each child embodies a different dilemma. While "Anchor Girl," whose weight destabilizes the house, must decide between going on a diet to make herself lighter or destroying furniture to restore balance, "Octopus Boy," who has outgrown his home, must choose between cutting off his own limbs or damaging the surrounding space.



Figure 8 - Catarina and the house unbalanced. ©Renato Cruz

None of these choices would ever be acceptable in real life. However, within the context of Makupuni they serve as provocations that reveal the inner turmoil of neglected children and the absurdity of systemic pressure that strives for perfection. The performance thus becomes an exploratory study of moral decision-making, designed to stimulate young audiences to reflect and question the brutality of such situations.

Through its interactive framework, Makupuni had the purpose of inviting the audience to contemplate ethics and democracy on a small scale, giving children the symbolic power to influence outcomes. As the audience votes and negotiates these fictional choices, the play creates an environment for critical reflection about real-world decisions, empathy, and social responsibility.

Makupuni is a dystopian narrative. Rather than seeking optimistic solutions, it mirrors the contradictions of contemporary reality. As Bertucci (2022) observes, "there has been increasing research for dystopias in literature in the last years until 2019, in Brazil".

"A ideia de um estado totalitário é recorrente, e podem ser observadas tendências marcadas por elementos fantásticos, bem como pela degradação ambiental, tema que permeia várias obras." (Bertucci, 2022, p. 11)

The idea of a totalitarian state is recurrent, and one can observe trends marked by fantastic elements, as well as by environmental degradation, a theme that permeates several works."⁷

At the time *Makupuni* was created, dystopias functioned as cautionary tales—warnings about futures to be avoided. This perspective has since shifted considering subsequent global crises, such as the pandemic and the resurgence of wars. In this sense, *Makupuni* operates as both a reflection of and a reaction to these transformations: an aesthetic exercise in ethical imagination and a reminder of the consequences of our collective choices.

2.2. From Hybrid Aesthetics to Participatory Dramaturgy

As previously discussed, the convergence of digital and analog media was a defining feature of *Makupuni*. While the previous section examined the conceptual design of the island and the mechanisms of interactivity, this section focuses on how these hybrid elements are embodied in the dramaturgy, scenography, and audience experience of the play. The play's look and feel were largely shaped by the blend of technology and analog materials. Various animation techniques—such as puppetry, shadow theater, and digital animation—were combined to materialize the psychological and social traits of the children. Animation served as a medium to externalize emotional and behavioral aspects that could not be expressed solely through human actors. Video mapping functioned both as virtual scenery and as a space for digital animation sequences, creating a dynamic and mutable setup environment that responded to the rhythm of the narrative (Figure 8) and as already shown in Figure 5 and 6.

⁷ [Free Translation]



Figure 9 - Picture by scene mixing shadow theater and video mapping scene. © Kamyla Abreu.

The play is structured in two main parts. The first aims to immerse the audience in the fictional universe. The employees, acting as storytellers, explain what *Makupuni* is and how the island operates. In this initial moment, a simple interactive action is proposed: the audience chooses which pair of glasses the employees will wear. Although this choice does not alter the story, it introduces the public to the voting mechanism that will be used in subsequent moments of the performance. The purpose of this early interaction is pedagogical—it builds audience confidence in their role as active participants and gradually integrates them into the logic of the system that governs Makupuni.

The dramatic action begins when the employees find three rejected boxes. They open them and discover three children inside: Octopus Boy, Anchor Girl, and Paperback Boy. Each character represents an incompatibility between human and environmental conditions—a metaphor for exclusion, difference, and malfunction within a system that prioritizes standardization.

The third character, Paperback Boy, was reinterpreted in the 2023 version of the play. He became Alice – the virtual assistant of Makupuni (Figure 10). In this updated version, Alice is delivered to a family who realizes the factory's mistake but decides to keep her, fascinated by the possibility of having a virtual assistant. This transformation reveals how technological mediation reshapes affective relationships in contemporary society. Alice's story reappears during the third voting moment, echoing the same interactive logic established earlier in the performance.



Figure 10 - Alice the virtual assistant of Makupuni © Vida Oliveira

Octopus Boy is delivered to a family living in the western ocean region, in a home too small for his expanding body. His oversized form soon exceeds the spatial limits of the dwelling, leading to his rejection. *Anchor Girl* is assigned to a family in the eastern region, whose floating house collapses under her weight. Likewise, *Paperback Boy*, in the original version, is sent to the southern technological zone, where his parents—accustomed only to digital media—cannot read paper. They promptly dismiss him for being "obsolete." Through these three episodes, the play constructs a poetic critique of social and environmental dysfunctions, associating emotional rejection with systemic failure.

The employees act as both narrators and mediators, guiding transitions between scenes and maintaining the audience's engagement. As shown in the flowchart (Figure 5), the action pauses at conflict moments, inviting the spectators to choose the next course of action. The audience casts its votes through dedicated software, and the option receiving the most votes is enacted by the performers. This participatory structure reinforces the work's central theme: issues about how others could demand behaviors or formatting our body, how to find choices

that appoint in our happiness and self-balance. In the end, it is about transforming the voting moments into a big ask: Are we able to decide on these issues democratically and collectively?

2.3. Interactivity and votes

Two distinct software programs were employed for audience voting, as detailed in the following sections.

2.3.1. First Version (2017-2018)

Spectators selected their preferred option by raising a sign with the corresponding color. To assist this human-analog interface, a software program was developed by Bárbara Castro (Ambos &&) using *Processing* (*Processing Foundation, n.d.*). Within the software, the operator could select three colors for voting. These colors could be calibrated before each presentation to address potential variations caused by the printer or theater lighting. The software identified pixels based on predefined color parameters, including saturation and brightness levels.

Despite this digital layer, voting occurred primarily through analog means. Since part of the audience consisted of children—who generally do not possess cell phones—a mobile voting application was deemed unsuitable. Moreover, previous experiments developed during my Master's Dissertation revealed that mobile-based voting could lead to distrust among participants, as they could not visualize others' votes and thus questioned the transparency or fairness of the process. Consequently, the project deliberately integrated analog and digital technologies within the same artwork.

The experience of this hybrid voting method generated several noteworthy reactions. The functioning of the software is illustrated in Figure 10, which shows the voting moment and how the audience interaction resembled a collective forum. During multiple sessions and performances, some recurring spectators began to organize informal campaigns among the audience, manipulating the results—for instance, by raising more than one sign or wearing clothes in the color they wanted to win. This behavior constituted a new form of collective feedback emerging from audience dynamics.

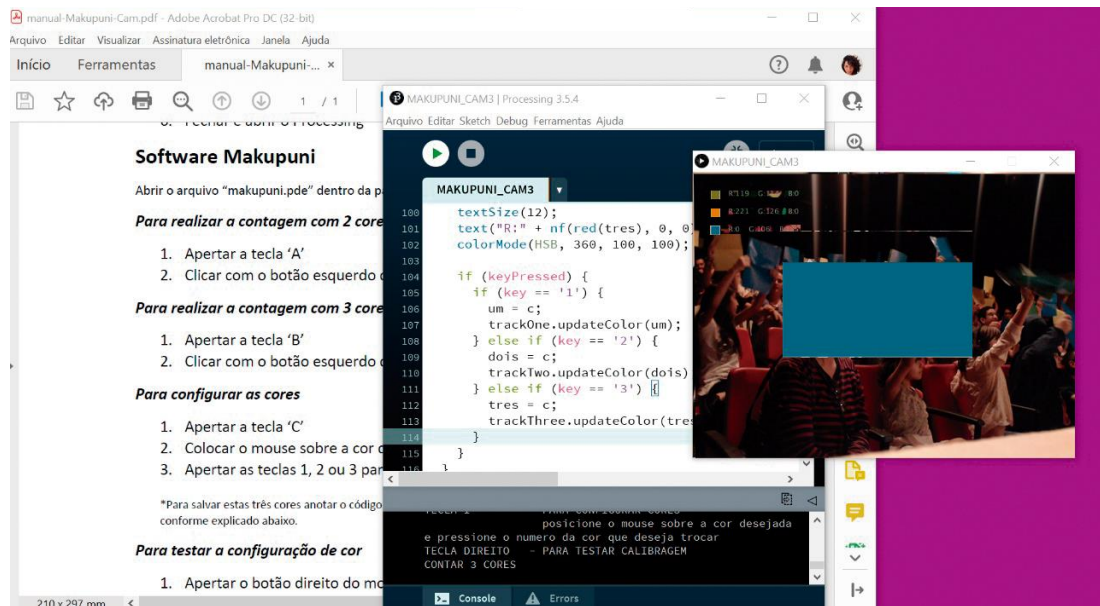


Figure 11 - Print composition by software working.

2.3.2. Second version (2023)

The architectural system for the new iteration of *Makupuni* (2023) was based on the sounds produced by the audience. It was developed in *Max/MSP* (Cycling 74, 2023) and integrated with *MadMapper* ((GarageCube & 1024 Architecture, 2024), 2010) for the video projection of the scenery. While maintaining a structure similar to the earlier photo-based version, this new system introduced enhancements that addressed prior limitations.

At each round, the audience chose between two possible narrative directions. A micro-animation of each option was projected on opposite sides of the stage, while the central area displayed both superimposed at 0% opacity. During a ten-second voting window, the audience produced higher or lower collective tones, and the corresponding central image gradually became opaque as the other faded. When one image reached full opacity, the actor ended the vote and the winning option guided the continuation of the scene, altering characters, video, set design, music, and lighting.

An external microphone was introduced to capture audience sounds. Although the presence of a software operator remained necessary, the results were now displayed in real time

on stage. This allowed the audience to observe the immediate visual outcome of their input and to adjust or reinforce their responses as desired.

One key challenge for the team was relinquishing total control over the voting moments. In contrast to the earlier version, neither dark areas of the scenery nor participants' clothing interfered with the system's response.

During preliminary tests, the system processed a wide range of audio inputs, which required the implementation of a filtering mechanism to prioritize the most relevant sounds. For instance, since the system recognized silence as a form of sound, it had to be calibrated on an audible scale. Pitch filters were designed within a range from approximately 300 to 600 decibels. Because *MadMapper* could not directly process decibel values, all audio inputs from the audience were converted into MIDI signals to control video opacity. The 300–600 dB range was translated into a 1–127 Hz MIDI scale. Two output gates were employed, each linked to a different video option, and the input value determined which gate was activated.

A prominent red button initiated the system, while the audio capture window was limited to three seconds. The activation of this button also indicated that the captured sound had been processed. As shown in Figure 12, this architecture exemplifies the system's configuration.

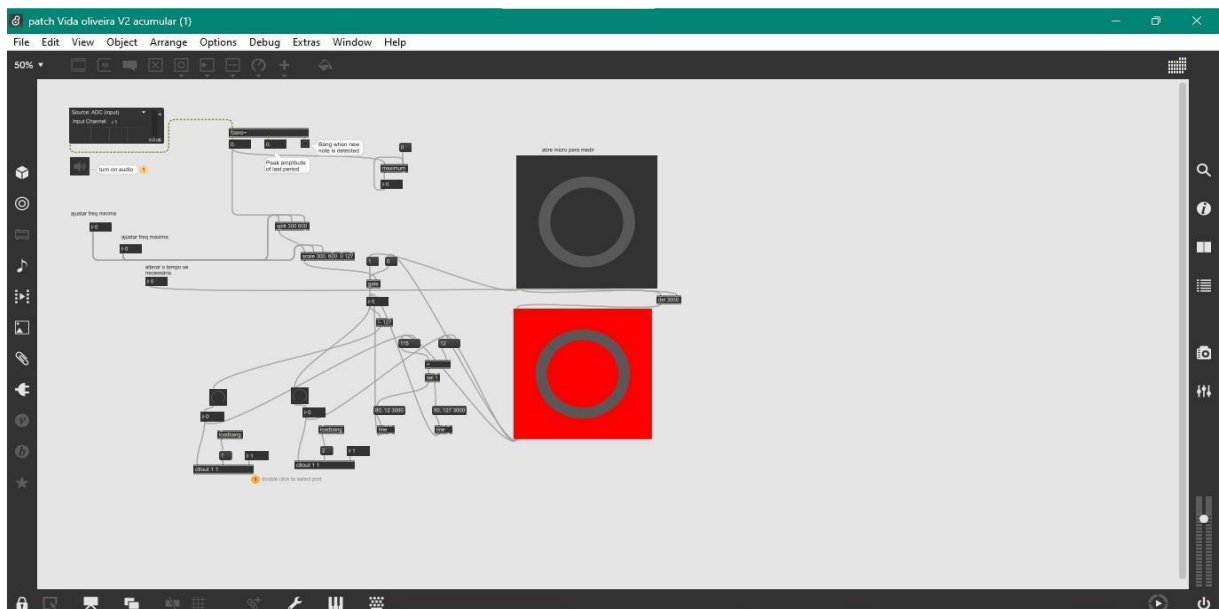


Figure 12 - The sound-based architecture

A notable feature of this sound-based system was its ability to promote intuitive and immediate audience comprehension. Spectators quickly learned when to produce sounds and

when to remain silent. Following these adjustments, the system achieved stable performance without significant operational issues.



Video 1 - voting moment 2nd version 2023

2.4. *Cycle n. 3* - How did the format answer questions about empowerment?

Based on the main questions raised by *Makupuni* (2023), the first step was to reexamine the audience material and organize it for analysis. With the data from 2022, four years after the shows in Brazil, an initial analysis was conducted.

Makupuni (2023) toured in Brazil from 2017 to 2018, with its premiere in Rio de Janeiro. In the first year, the play attracted 995 spectators across two seasons at two theaters, both in affluent areas of the city. The audience was predominantly children, most of whom attended with their families.

In the second year, following recognition at the CBTIJ Awards, the play was performed in other four theaters in the metropolitan area, reaching a total of 700 spectators. The audience here was largely made up of children from public schools and NGOs, many of whom came from lower socio-economic backgrounds. There was even one session in which most of the audience members were attending the theater for the first time. In these sessions, children usually attended with teachers or tutors, not family members.

The final season took place in a middle-class neighborhood of Rio de Janeiro, with 391 spectators, the majority of whom attended with their families.

Data Collected could be summarized:

- **Quantitative Data:** This includes the number of viewers per theater and season dates (see Table 1), as well as demographic data from the theater's surrounding neighborhood, such as GDP and IDH statistics.
- **Qualitative Data:** After the tour of the play, I kept in archive different materials, such as: Footages of the performances; Box office documentation; Records of memories and experiences of team members; Record of unsolicited comments of the audience during the performances.

For the study, these materials were used and analyzed in order to produce observations of audience behavior (Table 1), including instances in which the audience members were “cheating” during interactive moments of the play.

Socio-Economic Data:

The first and second seasons were held in Rio de Janeiro's second and third wealthiest neighborhoods, which also had the highest GDP and IDH in the city, except for the initial season in Ipanema, which included spectators from Rocinha. The Sescs Theater in the metropolitan area focused on children from public schools in cities with lower IDH rankings. The final season took place in a middle-class neighborhood, with an IDH ranking of 94th in the city. Data provided by the State of Rio de Janeiro was also considered, specifically the official ranking of HDI (Human Development Index) and GDP (Gross Domestic Product) (*Atlas Do Desenvolvimento Humano No Brasil*, 2017; Cerqueira & Bueno, 2024). This socio-economic data is available in table 1 below,

City	Theatre	Neighborhood	Duration of Season	Numbers of spectators	IDH / GDP	Kids affiliation
Rio de Janeiro	Teatro Ipanema	Ipanema	6 weeks / twice per week	668 ~ 56 / per day	Ipanema has the 3th big IDH and GDP of Rio de Janeiro. we had 65 spectators from NGO Rocinha without	Kids with their parents. Tickets for sale for anyone interested.

City	Theatre	Neighborhood	Duration of Season	Numbers of spectators	IDH / GDP	Kids affiliation
					pay for the tickets. Rocinha is in 31th position.	65 kids from NGO "Ong da Rocinha".
Rio de Janeiro	Teatro Municipal Café Pequeno	Leblon	3 weeks / twice per week	327 ~54,5 / per day	Leblon is the second big IDH and GDP of Rio de Janeiro	Kids with their parents. Tickets for sale for anyone interested.
Duque de Caxias (RJ)	Teatro Sesc Duque de Caxias	Centro	2 shows closed to kids from Public schools	200 ~100/ per day	Duque de Caxias has a good GDP, but has the 52th IDH of Rio de Janeiro (state)	Kids From 2 public schools near the theatre, invited by theatre coordination.
São Gonçalo (RJ)	Teatro Sesc São Gonçalo	Centro	1 presentation to public schools and families in general	200	The city has the 14th IDH of the state.	Kids with their parents. Tickets for sale for anyone interested. Nice price tickets.
Nova Iguaçu (RJ)	Teatro Sesc Nova Iguaçu	Centro	1 presentation closed to kids from public schools	380	The city has the 45 th IDH in the state of Rio de Janeiro.	Kids From 32 public schools near the theatre, invited by theatre coordination
Rio de Janeiro	Teatro Municipal Ziembski	Tijuca / São Francisco Xavier	4 weeks	481	This neighborhood is in position 94 at the IDH ranking of neighborhood of city Rio de Janeiro	Kids with their parents. Tickets for sale for anyone interested. Nice price tickets.

Table 1- Seasons and audience data of Makupuni 2017-2018

Interactive Choices:

Some interactive scenes showed distinct patterns in audience response. For example, the scene where Paperback Boy rips a page from his body instead of stealing his parents' cell phone was never chosen. Similarly, the option where Octopus Boy cuts off his legs instead of furniture was rarely selected, especially in the first season, likely due to fear or discomfort. Interestingly, during a performance attended by 380 schoolchildren without accompanying adults, this option was chosen, as shown in the following video footage.



Video 2 – voting moments: Octopus Boy cuts its legs

In the Anchor Girl story, girls often voted to have the character choose a diet rather than remove furniture, which was also visible in the video footage below.



Video 3 - voting moments: Anchor girl does a diet

Although the data used for this phase was limited in order to deepen the study of possible correlations between the sociodemographic data of the audience and the choices that they made during the play, the behavioral cues were observed:

- Discussion between peers before decision making and voting;
- Discussion within family members before decision making and voting;
- Abstention rates for decision making and voting were uncommon, with the exception of phew elder audience members

- Dressing in particular colors in order to win more votes (revealing the usage of creative strategies, without losing the game principles)
- Recurrent spectators that already knew the play engaged in campaigns to win the voting moments and see the narrative shift in their desired way.

Finally, some comments spectators made spontaneously to the creators were of particular importance:

- Applying the color voting system at home by families after seeing the play;
- Voting and losing were a topic to discuss democracy, vote, and majority, by children and family's spectators.
- At least 10 spectators commented on endings as a kind of suicide. Sometimes symbolic meanings, include the death of the kid to birth the grown-up, others tragic endings, like giving up their personality to others' pleasure.
- Grown-up spectators report some identification with the characters reflecting on their childhood.
- Disability people went to the team to talk about representation feelings with characters and their socialization difficulties.
- One adopted woman attended the play three times and talked to the team to talk about her feedback and representation feelings felt when was attending the play.

This discussion showed the importance of combining both quantitative and qualitative data. It also showed the importance of gathering systematic qualitative data from the audience because it shows about audience's subjective experience which cannot be seen only in the quantitative data.

2.4.1. Conclusions from cycle 3

The preliminary study identified an impact of the show on the audience, although further studies are needed to classify its nature and also if the interactive aspect has any influence on it. Since the measurement tools in the first version of the show were not pre-defined, the collected data from the audience was lower than expected, considering parameters as number of votes for each option in each presentation and number of non-participative people in each session. This kind of data would be extremely valuable in measuring engagement and empowerment, and in correlating with general audience demographics. In an attempt to fill

these identified gaps in the study and based on the preliminary conclusions, a new study of Makupuni was designed.

One strategy for collecting audience data is to use a new cycle that involves redesigning the show and using pre-defined measurement tools. That strategy shows how the spectatorship of this show took place, in its already conceived form, and then compare it with other practices and formats. These tools should be fully used in future productions. In addition, the richness of some of the unsolicited comments we have shared in this preliminary study arouse the importance of developing a tool to collect and embed these comments from our audience to the study in the following cycles. Audience observation should also be systematized, with clear parameters to observe, to allow comparisons between sessions and stronger correlations with other data. These qualitative data tool, well designed, provided means to deep understand the spectatorship in Makupuni.

Makupuni was an important play for me and the company. The feeling of democracy and empowerment discussion grew some hope in all of them. How can empowerment be promoted in theatre plays? With the right ethics, how could digital tech participate? Does art provide a way to exercise democracy? We are now one step closer to studying this pressing issue.

2.4.2. Cycle 4 - Staging Again - Makupuni 2023 - Data analysis.

The new study observed the audience's behavior during the performance in Portugal in May 2023. For this latest round of studies, an observation form was prepared, and two external observers examined the audience. Voluntary and anonymous surveys were distributed to the audience for feedback after the play.

The "Makupuni" presentation had 51 viewers, and their actions during interactive moments were observed. To rate the behavior, the observer rated each behavior and interactive moment on scales. This method draws inspiration from observational forms used in audience spectatorship studies (Freedberg, 2007; Prousalı, 2018; Walmsley, 2011). The observations collected data that will be detailed later and provide positive indications of how the spectator feels during the play.

Quantitative Data

How many people are sitting in your viewing area?

How many adults?

How many are youth?

How many kids?

	Behaviors to be aware of	NONE	VERY FEW	FEW	MANY	ALL
Before the show starts	Are the spectators arriving on time?					
	Are the people in the audience talking?					
	Do they arrive in groups?					

	Behaviors to be aware of	NONE	VERY FEW	FEW	MANY	ALL
1st voting time	Does the audience understand what needs to be done?					
	How much interaction they have with the voting process?					
	There are people who interfere with other people's votes.					
	Are there any non-voting spectators?					

Figure 13 - Observation sheet Makupuni 2023

This new study about Makupuni ends the important cycle of this research. It was possible to understand what is supposed to happen in audience studies and what an effective audience study is. The results also inspired all subsequent decisions.

For this new performance, some changes were made in the dramaturgy. In the first one, three children were born: Anchor Girl, Octopus Boy and Paperback Boy. Anchor girl has anchor feet, needs a floor and is also heavy. Her family lives in the clouds and needs everything there to be light, including the inhabitants. The Octopus Boy is big and was born in a small family that lives in a small apartment under the sea.

The observed presentation was in Portugal, May, 2023. The second software (explained on 2.3.2. Second version-2023) was chosen for this presentation, that was promoted by the municipality of Porto. And had seen for 51 spectators - 33 adults, 6 adolescents and 12 children. It is observed by two external observers of which we have some data:

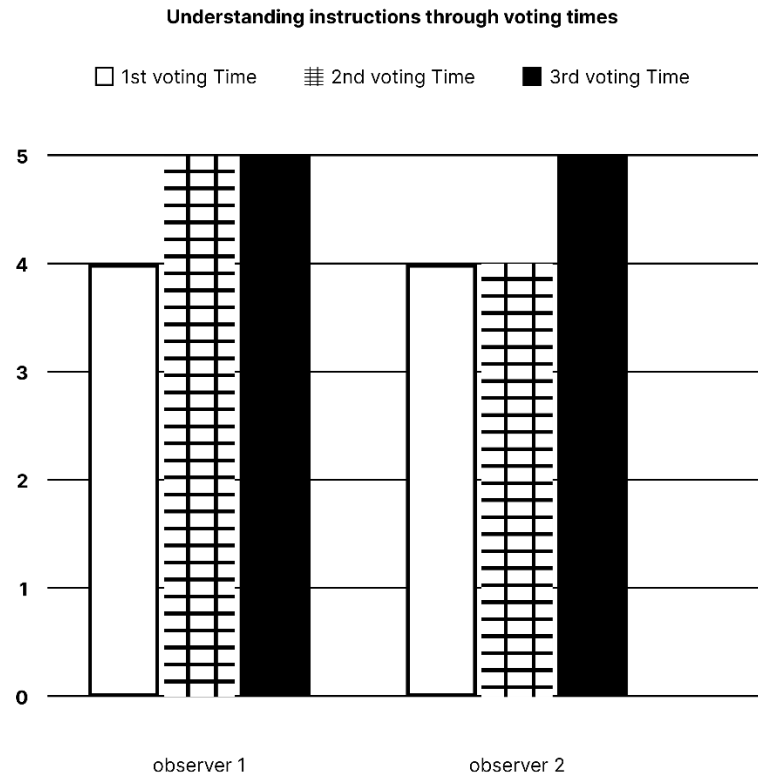


Figure 14 - Comprehension instructions in voting time

Most spectators comprehended the instructions during the initial voting time, and the remaining individuals grasped them fully during subsequent voting moments. (Figure 14)

We are witnessing a subtle rise in the tendency of individuals to affect the votes of fellow spectators, rendering the voting process more collaborative. (Figure 15)

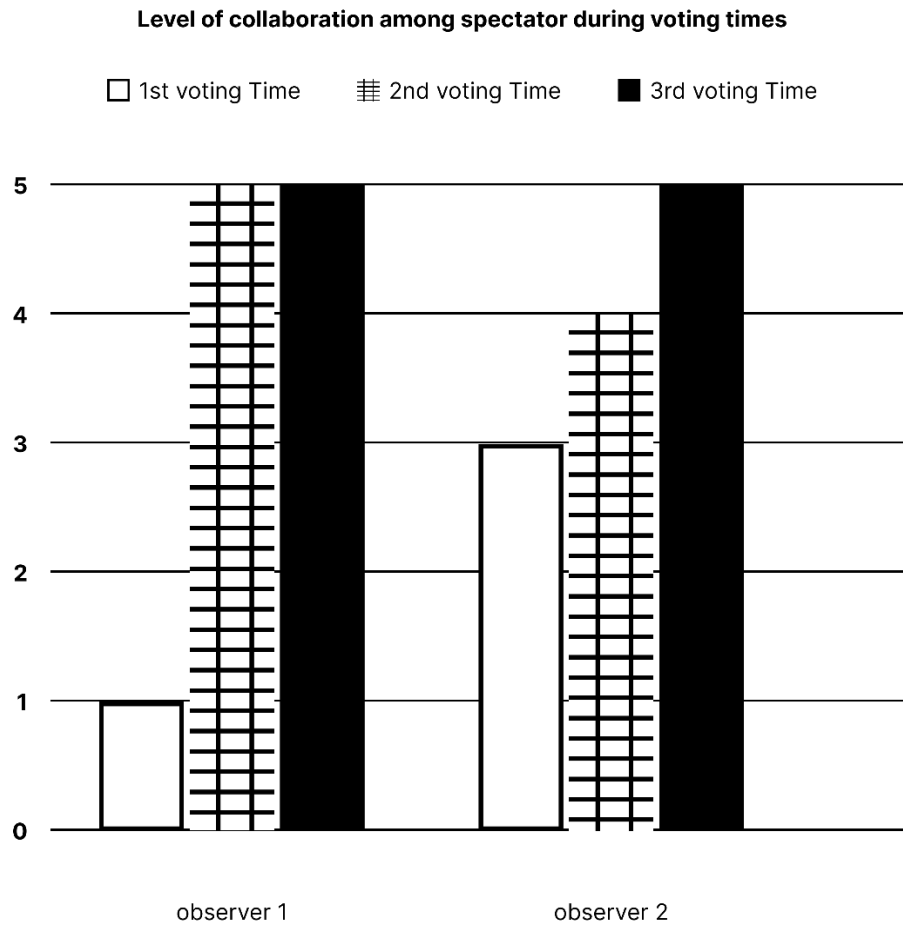


Figure 15 - Collaboration among spectators during voting times

Meanwhile, the proportion of individuals who abstain from voting or participating in voting periods remains relatively constant and low. (Figure 16)

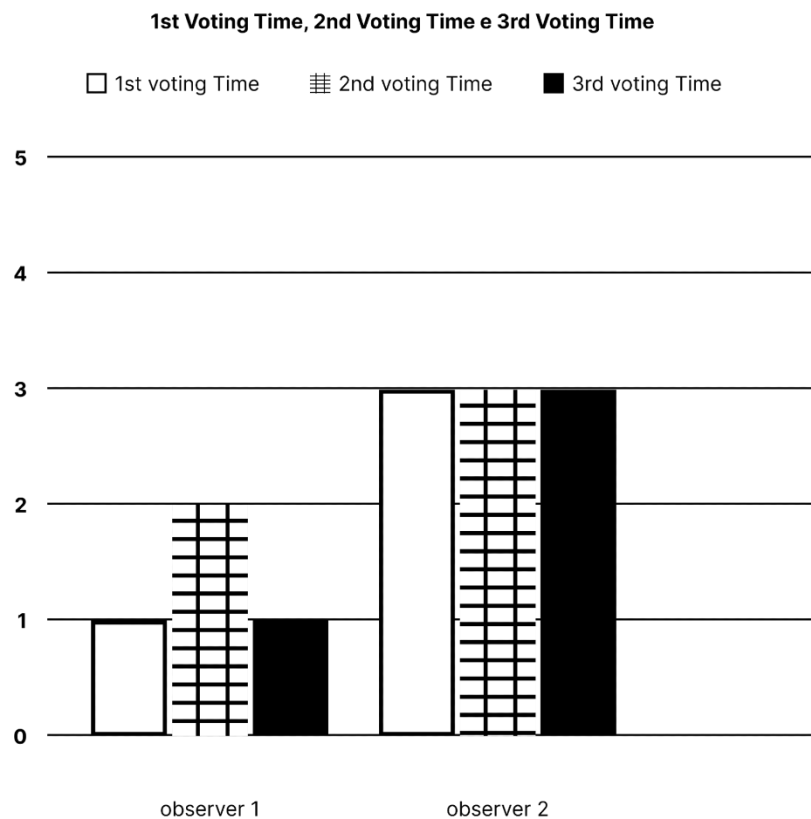


Figure 16 - Abstaining votes

In addition, besides the external observers, nine audience members anonymously completed a survey after the show. Their responses closely aligned with the information gathered by the observers: 77.8% reported no difficulty understanding the voting process, 100% felt encouraged to vote, and 66.7% recalled the show's themes even after it ended (survey and data retrieved can be found in appendix B).

We looked at the data from the show and saw that a lot is said about the audience's experience at the live show. However, there is very little information about whether the show actually affects their lives in the days or months after the show, namely on the levels of agency or empowerment in daily life. This highlights the necessity for the subsequent cycle to extend beyond the experiences portrayed within the play. We need to develop methods for post-experience follow-up, addressing evaluate real levels of social empowerment.

An important finding after the data analysis was that it is still uncertain the main reasons of the audience's responses in Makupuni. It may be incited by the show's interactive aspect, by the approached theme or by the technological mediation, or even being influenced by all of them at the same time. According to that, it is imperative, as following steps of this research, to

investigate the aesthetics of the oppressed - a performative practice that has already been widely validated - to establish the levels of empowerment in its interactive practices and to co-relate technological mediation to those practices. What was done in Makupuni as an artistic suspicion becomes a master question to replicate in new experiments.



3. ANANSE NTONTAN⁸ - Weaving the delicate web of audience methods.

Epitafio para la tumba de Adolfo Báez Bone

Te mataron y no
nos dijeron dónde
enterraron su cuerpo,
pero desde entonces
todo el territorio
es tu sepulcro
o más bien;
en cada palmo
de territorio nacional
en que
no está tu cuerpo
tú resucitaste
creyeron que te
mataban con una orden
de ¡fuego!
creyeron que te
enterraban
y lo que hacían
era enterrar una semilla.
(Cadernal, 2025)

⁸ The adinkra represents a "spider's web" and meaning wisdom, creativity, and the complexities of life.

3.1. Cycle n. 5 - What is measurable in the unmeasurable world?⁹

Ananse Ntotan is an Adinkra representing a "spider's web" that symbolizes wisdom, creativity, and the complexity of life. The spider is also respected for its creativity in weaving a web that can capture prey. "The spider's web is known for its strength. In fact, one strand of the web is stronger and more versatile than steel of the same thickness." (Adinkra Symbols & Meanings, 2016)

In this chapter, we focus on the measurement methods of weaving a robust web, with versatile approaches, like a spider, to "trap" the empowerment process in arts-based project experiences.

After Makupuni, some questions remain unanswered about the impact of the play on the audience's daily life empowerment. In the course of the new review of literature for this Dissertation, Tomlin's book *Political Dramaturgies and Theater Spectatorship—Provocations for Change* (Tomlin, 2021) emerged as a significant source of provocation. The author engages with Rancière (Rancière, 2009) concept of the emancipated spectator, showing how it could easily be captured by neoliberal discourse. Tomlin argues that, although spectators must be respected in their subjectivity and capacity to create meanings, their responses are never fully independent from ideological structures. Thus, a balance is needed between respecting spectators' autonomy and sustaining politically engaged theater practices.

In this work, we bring neuroscientific studies about spectatorship into the discussion to show how the dialogue between sciences and theater can produce solid results, avoiding the invalidation of politically engaged practices through a neoliberal debate focused on the individual rather than the community. As a first step, we build a reflection on empowerment, agency, and oppression (Boal, 2006; Conceição, 2016; Freire, 2000; Richardson, 2018) and connect these concepts with audience studies (Prousali, 2018), designing a theoretical base to experiment with new methodologies of audience measurement.

Neuroscience studies on spectatorship align with what theater artists have long argued about the role of theater: that spectatorship is not a passive act but involves perception, emotion,

⁹ For this chapter two previous publications by the author are considered (Chagas et al., 2025; Oliveira et al., 2024). Besides the inclusion of previously published material, new information was considered and included.

and embodied engagement. These tools and insights contribute to a longstanding interest of theater makers in understanding the status and experience of the spectator.

Empowerment studies also show that, while empowerment is always contextual—depending on social, demographic, personal, and political circumstances—it is measurable. Once the space-time of a group has been defined, it is possible to assess empowerment levels and, based on these measurements, provide tools to enhance agency. Therefore, emancipating the spectator and their subjectivity cannot be equated with discrediting artistic practices that pursue empowerment.

Following up on the audience methods discussion and referencing the Makupuni example, this chapter integrates the latest information on the topic with methods and an organizational approach developed after a workshop held at Universidade Católica Portuguesa. The workshop used the ideas and methods of the Theater of the Oppressed and served as a practical focus group to develop future methods, with discussions about different measurement methods and approaches. The purpose is to ensure that the audience measurement tools explained are accessible for use, refinement, and duplication by all those involved.

3.2. Theoretical web cycles.

From the early 20th century onward, theater theorists and politically engaged artists have explored various theories and questions about the spectator and spectatorship. One question that arises is whether it is workable to present political issues to the audience, and if so, how they will interpret them. There is the matter of why social issues are included in plays.

Boal et al (2008) asserts that every theater is inherently political as all human activities are political, and theater is one of them. In Theater of the Oppressed, it is crucial to employ an aesthetic of the oppressed that invites the audience to participate in the play and take concrete actions afterward—which is properly measurable in this process. This aligns with the concept of the "spect-actor," where participants embody roles and rehearse social change. Techniques such as Forum Theater encourage emotional resonance, as well as empathy geared toward action. Thus, aesthetic engagement in Theater of the Oppressed may support transformation precisely by activating the neural and relational circuits of empathy, agency, and collective action (Oliveira et al., 2024)

Regarding empowerment as the breaking the culture of silence about oppression, and raising the consciousness of the exploited about their oppression (Boal, 2006; Freire, 2000) Although Boal himself did not use the term empowerment, his proposal overlaps with what later scholarship systematized as empowerment. The pedagogical approach of Freire and Boal's theatrical methods align with the concept of empowering contemporary authors discussed here.

Theories about empowerment are found in a robust and large body of literature in the past 30 years (Kaaber, 1999; Richardson, 2018), as stated before, identifies three important aspects of empowerment: resources and enabling conditions, and achievements and goal attainment as aspects that can be measured and assessed indirectly. The third aspect, agency (ability to identify goals and act on them), can be measured directly. In this study, when we discuss empowerment measurement, we consider assessing the agency levels in participants. Considering that empowerment is always contextual, scope research is particularly necessary to define the desired empowerment and agency level proposed (Richardson, 2018)

From a neuroaesthetics perspective (McCraty, 2019), the interconnection of sensory-motor, emotion-valuation, and meaning-knowledge neural networks underlies how we shape our aesthetic experiences. While the sensory-motor system processes visual and sensory information, the emotion-valuation system assesses the emotional impact of these inputs (e.g., pleasure), and, ultimately, the meaning-knowledge system offers a context and cultural framing, refining our emotional and cognitive understanding of art.(Gatti et al., 2018) Historically, encountering art has meant more than looking at it: it has meant being affected by it, dancing in it, suffering in it, and even healing and thinking through it. The mirror neuron system enables viewers not only to visually and sensorial engage with art but also to physically experience the emotions and actions, allowing for an empathetic engagement with the artwork, a process often described as embodied simulation (Oxford University Press, 2025). Aesthetic experiences typically engage brain regions such as the anterior cingulate, orbitofrontal, and medial and dorsolateral cortices, which are involved with cognitive-affective, perceptual empathic processes, reward and pleasure networks, and pro-social behaviors (Kaaber, 1999; Spreitzer, 1996) This emotional and cognitive integration underlies participatory art forms, such as Theater of the Oppressed.

Neuroscience offers powerful insights into the complex task of creating a safe space. It also opens doors to understanding how Theater of the Oppressed techniques could contribute to this process. Neuroaesthetics habitually uses the tools of science to study how we perceive

art from a neurophysiological perspective (Chatterjee & Vartanian, 2014). From this perspective, the experience of beauty—or any aesthetic encounter—emerges from the intimate conversation between the three vast neural systems described above: the sensory-motor, the emotion-valuation, and the meaning-knowledge networks. The sensory-motor system reads the world through the eyes, the skin, the body; the emotion-valuation system gives affective weight to what is felt, balancing pleasure and discomfort; the meaning-knowledge system brings memory, history, and culture, breathing narratives into sensations. (Ligaya et al., 2020)

So, to be touched by art is not a metaphor: it is a physical truth. Art opens, irrigates and transforms the human being from within. Neuroaesthetics, in this sense, builds an essential connection between what we have of the most ancient—the ritual of art—and what we have of the most scientifically advanced, the neurosciences. Our brains are wired to be rewarded by aesthetic experience, not as a luxury, but as a necessity: aesthetic emotion sharpens cognition, nourishes empathy, and supports the architecture of human well-being.

The recent review of (Chatterjee & Vartanian, 2014) confidently asserts that aesthetic experiences engage the brain's reward and pleasure systems, including prefrontal cortex-related areas. Neuroaesthetics is a groundbreaking field that can explore the wider arts-related sectors, particularly the processes in audience theatre and participants in Theater of the Oppressed plays or workshops. According to (Rizzolatti & Fogassi, 2014), spectatorship is a personal and sensorial process in which the spectator feels like an actor. As an aesthetic experience is based on a mental translation and judgment about artwork, embodiment is crucial to making it a deep experience. The spectator must see the performance and simulate embodiment to create empathy and feelings about it. The Theater of the Oppressed proposes to facilitate this embodiment by creating a safe space where spectators can raise their oppression, talk about it, and modify their self-perception.

It also seems important to define what spectatorship is and how this field has been studied in theater theory. Prousalì (2018) defines spectatorship as the process by which spectators engage with the theatre and provides an informative historical overview of spectatorship studies in theatre theory. The author offers two perspectives to study the spectator's experience: the theorists who advocate for theatre as communication (Interpretation) and those who support the focus on sensations. Despite dualities, the author argues that neuroscience supports the validity of the theoretical assumption that "sensation" lies at the core of spectators' perception. The author emphasizes the importance of relying on interdisciplinarity

between theater theory and neuroscience to perform more robust studies on spectatorship. According to Prousalì, any artwork may elicit a reaction or incite action in an engaged spectator, and more sophisticated experiments could be designed based on such an interdisciplinary collaboration: "a new symbiotic model should be proposed" (2018, p. 2).

Through the sensorial experience, the body is stimulated to activate sensations and similar emotions without tangible actions. This phenomenon is described as "embodied simulation" by neuroscientist Vittorio Gallese (2007; 2012). Film experience and film immersion do not depend just on concepts and propositions, but rely on sensory-motor schemas, which get the viewer literally in touch with the screen, shaping a multimodal form of simulation that exploits all the potentialities of our brain-body system (Gallese & Di Dio, 2012). The embodied simulation is about feeling empathy in the fictional narrative, and feeling it in your own body as you review real-life experiences. The author shows it happens similarly in visual artworks, but also in immersive or interactive films. We could bring these studies to think about this perception in participatory or interactive theaters.

According to the theory of Theater of the Oppressed (Boal, 2008) and the Aesthetics of the Oppressed (Boal, 2006), art is a path to becoming conscious of our oppressions. The practice of Theater of the Oppressed has gained significant global recognition, observed in communities with dedicated groups engaged in its implementation into vulnerable communities. Forum Theater, for example, invites the audience to be actors, to participate in the production—not merely spectators but, as spect-actors.

As previously mentioned, Theater of the Oppressed is deeply interwoven with Paulo Freire's Pedagogy of the Oppressed (Freire, 2000). Inspired by Paulo Freire, Augusto Boal adapted Freire's principles to the arts. (Conceição, 2016) states that

"Boal desloca o espaço de libertação para o teatro e, posteriormente, para a arte, considerando as premissas propostas por Freire, estabelecendo um espaço de experimentação onde o ser humano, a partir de suas ações cotidianas teatralizadas, pode analisar a realidade para, concretamente, propor mudanças radicais. (Conceição, 2016, p. 159)

*"Boal shifts the space of liberation to the theater and, later, to art, considering the premises proposed by Freire, to establish a place for exploration where people can examine reality and suggest significant changes through their everyday theatrical behaviors."*¹⁰

¹⁰ [Free Translation]

Achieving these results requires active dialogue and listening throughout the process. This dialogue extends beyond the final performance and is integral to every phase of the workshop, where the Curinga (Joker) acts as both a mediator and a pedagogue for participants. According to Conceição “somente num local seguro e respeitoso, onde todas as ideias são levadas em consideração e a escuta seja priorizada, é que as histórias de opressão para a construção dos espetáculos poderão ser compartilhadas e a injustiça combatida” (*It is only possible when in a safe and respectful place, where all ideas are considered and listening is prioritized, can the stories of oppression be shared to build and injustice can be addressed*)(Conceição, 2016, p. 163)¹¹.

Tomlin (2021) criticizes some concepts about spectator autonomy. The author observes the theater post-Marxist to mix theater and politics, offering a measured critique to Rancière's autonomous spectator, seeing the rationale for autonomy as concurrent with the emergence of the neoliberal subject, who also values autonomy as a distinguishing characteristic. The author defends that a spectator's response may be autonomous from the artist's intention, but no response can be wholly autonomous from the influence of the ideological structures of neoliberalism by which the spectator, to a greater or lesser degree, might be said to be shaped (Tomlin, 2021, p. 12). In this context, achieving a balance between spectator autonomy and performance politics is crucial in order to prevent the alienating subjectivity of neoliberalism.

Based on this theoretical framework, a workshop/focus group was held at the Catholic University of Portugal to understand the means of evaluating the experience and experimenting with the Theater of the Oppressed in practice. From this workshop, a method was applied in a second workshop with the desire to measure the empowerment and agency of the participants.

3.3. Cycle 6. Measurable things.

3.3.1 A workshop / focus-group

The workshop lasted three intensive days, with six participants, three of them PhD students and three MA students. They are all professional artists in music, dance, or cinema. The first day was dedicated to experimentation with concepts about theater of the oppressed and interactive digital arts. There were games to discuss and practical experiments. On the second day, we had two external lectures: Flavio Santos Conceição discussed Theater of the

¹¹ [Free Translation]

Oppressed, and Nuno Correia discussed interactive art and measuring methods of audience evaluation.

Beyond the lectures, it was suggested to the students to imagine an interactive artwork that could be technologically mediated and capable of producing social change and social empowerment by the aesthetics of the oppressed principles.

From Nuno Correia's lecture, we realized what the "User Engagement Scale (UES_SF)" (O'Brien, 2016) which gives us a scientific way to measure engagement during the work of art and learned other possibilities in that field. Here, engagement is understood as immersion and involvement, as feeling part of it. The spectator, in this case, could feel empowered because they experienced the ability to choose. But feeling empowerment is not the same as being empowered in personal life, which led us to conclude the importance of finding a way to measure empowerment before and after the artistic practice as a way to achieve our goals in this research. This led us through our next steps of research thoroughly into neuroscience studies of the experiences of spectatorship.

When asked about methods of measuring empowerment in Theatre of the Oppressed, Flavio Conceição stressed the importance of observing audience members during performances and tracking their subsequent actions as indicators of empowerment and autonomy. While both lectures address methodologies with certain similarities, it is the political objectives of the creative process, not the evaluative tools, that fundamentally distinguish the Theatre of the Oppressed. Central to this approach is rejecting hierarchical distinctions between artists and audiences, which fosters audience participation in the creative process. This participation goes beyond verbal intervention during a performance. Instead, it aims to provide spectators with the means of production to create their own theater and express their experiences of oppression.

Although Conceição has demonstrated that observing spectators immediately after a performance and over time can be an effective evaluation strategy, this practice remains ad hoc. Systematically incorporating audience studies methodologies could therefore strengthen and formalize this existing evaluative process.

Returning to Tomlin (2021), the author presents a new analytical framework for examining contemporary political dramaturgy. Despite the pervasive influence of neoliberalism on audiences, she argues that there is an urgent need to reassess the capacity of contemporary

and future audiences to be affected by politically engaged theater. From this perspective, performance must be conceived as inherently oriented toward social change with a clearly defined political foundation established at the beginning of the creative process.

Putting these points together, our attention in the workshop was focused on empowering artists and their performances, seeing interactivity not as a tool to find agency and empowerment, but as a creative language, a way of creating performing arts beyond the political goals of the creative artist. And finding ways to de-hierarchize the relationship between artist and audience, inviting them to stage, speak and act together, keeping in mind that this is one way to create a better future through art.

In the third part of the workshop, we designed a new interactive artistic experiment centered on the principles of the Aesthetic of the Oppressed. The group worked through and idealized the interactive performance "Suspender o Céu".

The projected performance aimed to create a space where the audience could be invited to question their own depths and their own perception of reality. Initially, the idea was to create a space that would reverse the laws of physics; however, in terms of execution difficulties, the decision was made to force people out of the comfort zone of interpersonal relationships between strangers. A dark room, with sound devices that encouraged the creation of pairs or groups, as it reacted positively to the grouping of people. Upon entering the space and collecting the device, it would emit a sound that could increase in complexity and musicality when it was near other devices, inviting participants to form a ritual circle as the final stage of the process. Not having devices for all the participants would force a relationship between them, and would also incite questions about the social reason for the inequality in device quantities, and why the need to be together rather than each person in their own individuality.

At the end of the workshop, a mock-up (figures 17-18) of the performance and a document of objectives were created. The performance was defined in this document.

"Suspender o céu" is an interactive sound installation, referring to the expression coined by Indigenous Brazilian philosopher Ailton Krenak. In our approach, we look to the concept of ritual as a universal set of actions performed to build shared commonality. "Suspender o Céu" proposes an exploration of connectivity and subjectivity by engaging the participants with visual, acoustic, and haptic stimuli to foster new encounters and collective experience.

"The installation is set in a dark room, composed of five devices lighted and placed in a strategic location, mimicking a constellation. The device comprises an artifact that can be easily held in one hand, is programmable, and emits sounds, light, and vibration.

When participants enter the room, they can collect a device and move around with it. The devices have different behaviors, through emitting both light and sound. In being collected, or passing by another device, the light and sounds will change, cuing the participants that the devices communicate with each other. This behavior becomes more complex in their light and sound effects when near two or more devices". (Synopsis written by participants of the workshop).



Figure 17 - Mock-up Performance © Vida Oliveira



Figure 18 - Mock-up performance images -© Cristina Sá

After the discussions and the mock-up, the discussion led us to a new step in this research. Creating an interactive theatrical play with the audience involves measuring engagement and impact both quantitatively and qualitatively, not only during the performance but also throughout the creative process. Artists and participants will also be observed, listened to, and measured, seeing artists as mediators and educators, not as holders of all the answers. The methodology that will be used there will be outlined in the next chapter.

3.4. Conclusions

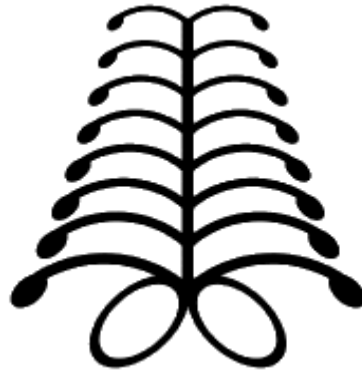
This chapter provides a critical literature review of Theater of the Oppressed, empowerment, neuroscientific approaches, and spectatorship studies. The purpose is to establish a rigorous theoretical and methodological foundation for the subsequent chapter's empirical research. Rather than making definitive claims, the review aimed to clarify conceptual boundaries and pinpoint analytical possibilities at the intersection of these fields. Through this process, the concept of empowerment was articulated with greater precision.

According to the literature, certain aspects of empowerment and audience engagement can be examined through structured methodologies within the political and ethical framework of the Theatre of the Oppressed. From this perspective, measurement is not viewed as a neutral or self-sufficient process, but rather as an analytical tool that must align with the social objectives and emancipatory intentions of the artistic practice. Thus, the review reinforces the importance of resisting reductive or neoliberal appropriations of empowerment, particularly when engaging with Theater of the Oppressed.

Within these constraints, integrating neuroscientific tools and audience studies with the Theatre of the Oppressed is a promising interdisciplinary approach, according to the literature. Rather than instrumentalizing artistic practice, this integration has the potential to provide more precise, context-sensitive insights into how empowerment can occur through artistic practices and spectatorship processes. These approaches contribute to a more nuanced understanding of how audiences may be affected, engaged, and mobilized in politically engaged theatrical contexts.

This chapter systematizes key theoretical debates, concepts, and methodological proposals to establish the conditions for experimental application. The reviewed literature

informed the selection of tools, questions, and analytical perspectives that guided the design of the practical research. The following chapter builds upon this theoretical groundwork by moving from literature-based analysis to practice-based inquiry. It presents and examines the Aya experiment, its motivations, and its methodological framework as an empirical exploration of the issues raised throughout this review.



4. AYA¹² - I am not afraid with you

Barbie Doll

By Margie Piercy



PLAY Aya

[Playlist of workshop here](#)

This girlchild was born as usual
and presented dolls that did pee-pee
and miniature GE stoves and irons
and wee lipsticks the color of cherry candy.
Then in the magic of puberty, a classmate said:
You have a great big nose and fat legs.

She was healthy, tested intelligent,
possessed strong arms and back,
abundant sexual drive and manual dexterity.
She went to and for apologizing.
Everyone saw a fat nose on thick legs.

She was advised to play coy,
exhorted to come on hearty,
exercise, diet, smile and wheedle.
Her good nature wore out
like a fan belt.
So she cut off her nose and her legs
and offered them up.

In the casket displayed on satin she lay
with the undertaker's cosmetics painted on,
a turned-up putty nose,
dressed in a pink and white nightie.
Doesn't she look pretty? everyone said.
Consummation at last.
To every woman a happy ending.

¹² Aya is an adinkra. It represents a fern and symbolizes endurance, resourcefulness, and defiance against hardship.

How do we define fear? What is it to be afraid of something? What is to be an artist when you feel deep fear?

For a long time, I thought that fear was a lonely place, a moment in life, a normality on the street. Something that you cannot run away from. Still, this is not what academic research on the subject shows us. Violence in ex-colonized cities, affecting people from minorities, is more than an isolated problem; it is structural. Fear is a kind of contour in these societies. (Lachan et al., 2022)

If we recognize fear as a problem rooted in social structures, we can understand how different discrimination and oppression link to higher death rates. For example, in Brazil, statistics reveal that Black people, including those of mixed race, were victims in 76.5% of the total murders accounted for in the year 2022. (Cerqueira & Bueno, 2024) Hand in hand, there continues to be a high rate of femicide and of women being killed solely for their gender, with 48,289 assassinated in 2021 and 3600 in 2022. (Cerqueira & Bueno, 2024)

Fanon (1963) discusses violence within the colonizer system. The author noted cities built on colonial systems created two distinct worlds that openly showcased inequality and did not invest in diverse living conditions. The biggest interest is evident: the "other," the "foreigner," and the "white" are the divinities directing others. Fanon asserts:

"The settler's town is a well-fed town, an easygoing town; its belly is always full of good things. The settlers' town is a town of white people, of foreigners. The town belonging to the colonized people, or at least the native town, the Negro village, the medina, the reservation, is a place of ill fame, peopled by men of evil repute." (Fanon, 1963, p. 39)

Huberman and Nasser (2019) also show the continued existence of the divided world. The authors compare violence and geographical structure in two cities: Jerusalem and Rio de Janeiro. They realize that the work of the police in these cities operates similarly. In Jerusalem, Israeli policies aim to maintain Zionist dominance while displacing and controlling the Palestinian population. In Rio de Janeiro, pacification is used to control favelas through militarized policing, allowing real estate speculation and gentrification. Despite these repressive tactics, there are powerful resistance movements in both cities.

Substantial resistance. As a fern, it spreads spores independently of charity, even in structural violence.

That is where Aya begins.

Here, apart from the adinkra definition (as previously mentioned), there's a theater workshop, designed to be a safe space for the combination of art and research. It draws on theories of theater and the Aesthetics of the Oppressed and invites participants to map their own experiences. First, I offer my cartography, my story, and my world. Then I step back and give them the tools, the space, and the time to create their own.

Some spores of strong resistance are spreading.

To empowering over the fear, through art.

This study uses digital technology to work with art and neuroscience, aiming to understand how the Theatre of the Oppressed impacts those involved – artists, non-artists, *spect-actors*.

4.1. Cycle No. 7 features Aya as a workshop.¹³

The workshop occurred in July 2024, from 9:30 AM to 17:00 PM with a one - hour lunch break in between, in Porto, Portugal, at the Universiade Católica Portuguesa. The room had designated areas for observers, a TV and speakers, drawing material, writing material, and props (hats, coats, bags, etc.). The team placed a fisheye video camera on the ceiling. The starting point, or baseline, is the time right before the workshop begins. This is the baseline data, gathered from participants before any major or intensive movements. The data gathered throughout the workshop, including EDA and HR, will be assessed against the baseline to identify improvements or declines. Next are the initial steps, which include filling out the survey and providing informed consent. The workshop began with Theatre of the Oppressed activities.

The method outlines the first part, which is dedicated to sensitizing participants to sound beyond those in everyday life. According to Augusto Boal, this practice means "listening to what is heard". Games with rhythms and body movements (Figure 19) also helped participants to explore alternative forms and positions, while stimulating their creativity.

¹³ Much of the data listed here was previously published in the article, "AYA — I Am Not Afraid of You." "AYA — I Am Not Afraid of You: Combining Assessment Tools for Evaluating a Theatre of the Oppressed Workshop." This article was co-authored with colleagues who either took part in the experiment or were my supervisors during it. (Chagas L, et. all, 2025)



Figure 19 - Means of transportation images © Cristina Sá.

In the next phase, we sensitized their vision "to notice what we see" beyond their everyday view of the world. Games involving the creation of body images followed this, imitating animals, objects, and finally cars. The purpose of these games is to prepare participants for, and familiarize them with, the complex scenarios at the conclusion of the Theater of the Oppressed workshop. They also offer a visual representation of oppression, exploitation, and interconnectedness. By designing a machine composed of individuals, each functioning as a component, movement patterns that naturally create hierarchies will emerge. Thus, the games are created to encourage this thought process.

By the end of the morning, the games became more creatively oriented, as participants listened to songs related to the workshop's themes (here we chose "Pagu" by Rita Lee; "Vaca Profana" by Caetano Veloso and "Maria Vila Matilde" by Elza Soares). The songs were based on the Curinga (Joker) knowledge of music and their lyrics had to be related to women and gender issues. They also had to be sung in Portuguese to facilitate the participant's understanding.

We encouraged the group to create short texts and/or visual works from what they heard (Figures 20-21). The exercise intends to foster song discussions and encourage self-esteem by helping people find their creative skills.



Figure 20 - Examples of drawings inspired by songs

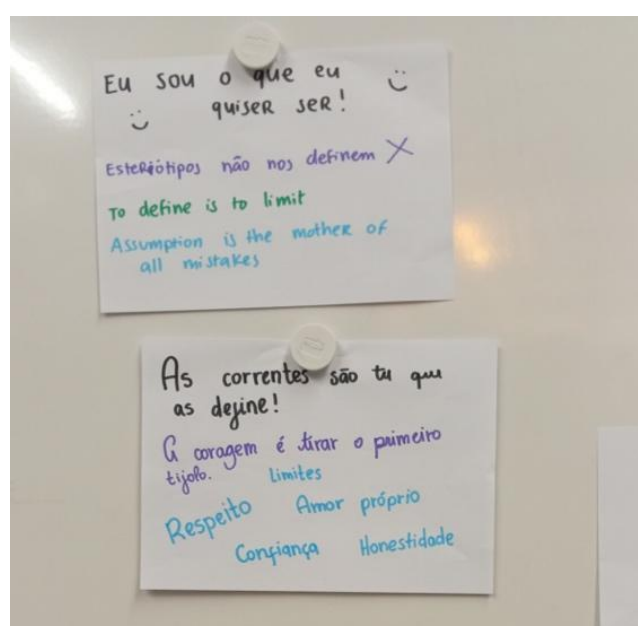


Figure 21 – Examples of texts inspired by songs

As following steps, the groups created static images drawn in mental images from the songs. These image-scenes were discussed by the participants regarding the gender violence framed in the songs. Then, the participants developed a previous and subsequent frames, and after a collective discussion about them, the participants developed movement transitions between the images based on theatrical improvisations technique.

According to this procedure, two scenes were created: one called “dark street” and the other called “couple fight”. They were short, speechless and illustrative scenes of any kind of

fear aroused by the songs and games previously worked on. The first scene framed a girl in a dark street being followed by an unknown man. Afterwards, it generated a heated debate among the participants discussing practical solutions to deal with this kind of situation in real life. The second scene presented a recurring case of domestic violence, inciting the debate discussing practical solutions for this different situation.



Figure 22 - "Domestic violence" scene



Figure 23 - "Dark Street" scene

After that as a final step, two scenes were created by the groups. As procedures, there no previously defined themes for the group work. The only guidance given was to the participants create scenes based on an experience – lived or known – with a unsolved oppression conflict in order to developed a forum scene and debate. The first, called "Dad's Scene", portrayed a father who treated his daughter and son differently in relation of domestic chores, burdening the daughter. The second scene, called "Professor's scene", portrayed a teacher who treated two students very differently, belittling the student who seemed to be "more serious".

Both scenes were presented, with one group observing while the other was enacting. During the enactment, the Curinga (Joker) mediated the relationship between performers and observers, facilitating the discussion of the scene with the audience and inviting them to step in into the oppressed positions, to try to find solutions – together – for the oppression that was identified.

Through scenes and theatre games, the workshop maintained an ongoing dialogue in the exploration of participants lived experiences. After each activity (and not only at the last "scenes" of the workshop). The Curinga (Joker) also always led a moment of reflection that seeker to promote active learning – promoting and environment open to adult women of any social class, nationality, and ethnic group.

4.2. Criteria to participants

The study involved 9 adult women who responded to an open call (Appendix C) spread via email and social networks. Participation was voluntary and contingent upon signing informed consent. 10 places were available, with priority given to those who signed up first. One responder did not show up, so we had only 9 participants.

Applications that did not meet the eligibility criteria were not accepted. These criteria included:

- Adult women
- Availability at the established date and time
- Agreement on the consent and data confidentiality form.

The experiment was conducted as a single full-day artistic practice session with all nine participants. There was no control or comparison groups. Of the nine participants, one did not have the psychophysiological data collected, but still participated in the practice and replied the

surveys. The sociodemographic characteristics of the participants are summarized below (Table 2-4):

General information:

Gender: 100% Female (9/9)

Marital Status: 100% Single (9/9)

Age Range: 18-39 years old

Education, nationality and ethnicity (table 2-4):

Education Level	Count	Percentage
BA in Psychology	7	77.8%
PhD in Psychology and Education	2	22.2%
Total	9	100%

Table 2 - Participant's Education

Nationality	Count	Percentage
Portuguese	5	55.6%
Brazilian	3	33.3%
Portuguese-Brazilian	1	11.1%
Total	9	100%

Table 3 - Participant's Nationality

Ethnic Group	Count	Percentage
White/European/Portuguese	7	77.8%
American Indigenous or Mixed-Race	2	22.2%
Total	9	100%

Table 4 - Participant's Ethnicity

4.3. Protocols Cycles

As an iterative process, we have been stitching together different instruments, like weavers threading a tapestry of transformation and impact. Our purpose has been clear—to craft a toolkit, a protocol, something artists can carry with them when they propose themselves to create, to stir, to shift something deep within people. But this toolkit couldn't be rigid; it had to be both simple and complex, structured yet fluid. It is strong enough to handle the rigors of scrutiny, yet soft enough to hold the artistic purposes and goals.

And so, we worked through layers. Each intervention brought a new instrument, each thread strengthening the weave. We started simply—with a simple logbook, with facilitators and participants' observations. Then, we listened actively. Collected more specific data by using focus groups, gathered spontaneous comments, and conducted surveys. We included external observers, who filled out observation sheets regarding certain experiential aspects at previously determined moments.

The next important step was to add more depth, clarity, and validated ways to translate those intangible experiences. Then, the inclusion of validated surveys aimed to measure the effects of the intervention, considering variables such as empowerment or emotional regulation strategies. With these strategies, we collected before, after, long after—chasing the echoes of change, mapping how intervention lingers, how it could settle into the body and into memory.

Bringing additional insights into physiological and emotional states, particularly in situations of heightened emotional arousal (e.g., states of stress, anxiety, excitement), and emotional engagement and cognitive load (e.g., creativity, problem-solving tasks, emotional resonance and positioning on other's people situations). In Aya, we did not just ask what they felt—we also traced it in heartbeats, in tension, in the stress shifts beneath the skin. The practices of Theater of the Oppressed demanded presence, demanded engagement, and now, we could witness not only what people said they experienced, but how their bodies acted in response.

Aya was the moment where everything converged. Our toolkit took its fullest form here, a testament to the power of blending art with science, experience with evidence. We are sharing it as an evolving story, an invitation to continue investigations in creating-with arts projects and empowerment studies by and through art.

Instrument	Type of data	Reading	Report	Variant
Discussion/ group-reflection designated moments	Qualitative	Subjective	Self-report	Oral, group, talking
Observation Sheet	Mixed	Subjective	third-party report	Written, defined moments (8), defined variables
Video recording	Qualitative	objective	none	Used only to verify the timeline when needed
Survey Empowerment	Mixed	Subjective	Self-report	Empowerment scale, written survey
Survey about workshop	mixed	subjective	Self-report	written survey
Biosensors	Psychophysiological measures/ Quantitative	Objective	none	Heart rate and electrodermal activity

Table 5 - Assessment tools used for Aya workshop

Each participant was identified only by the color of the ribbon on the observational sheets (Fig.24), with anonymity safeguarded while allowing for accurate correspondence with the biosensor readings. The empowerment surveys were also anonymized, employing code identifiers to maintain privacy while enabling the comparison of data across surveys and datasets. A secure file linked ribbon colors, sensor numbers, and survey codes, ensuring the accurate integration of psychophysiological and survey data without compromising participant identities.

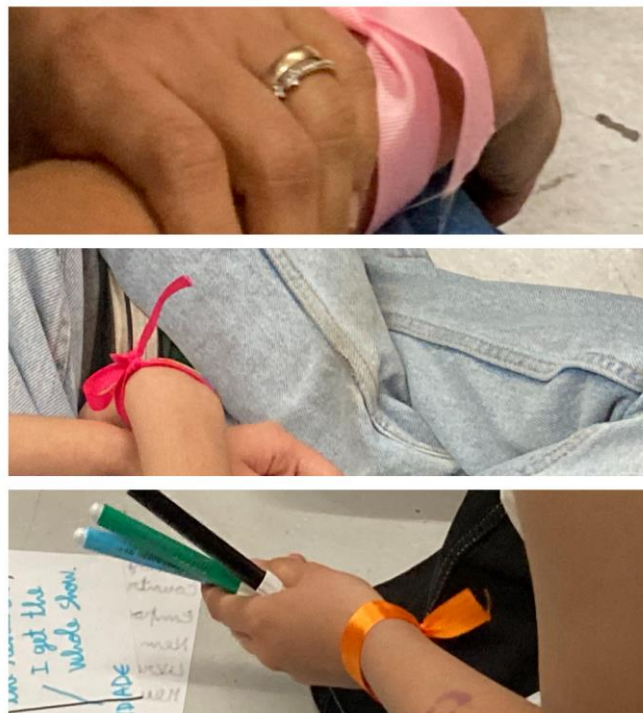


Figure 24 - Identification through colored ribbons

4.3.1. Detailed sequence of activities

- i. Welcoming Participants
 - a. Participants were welcomed into the workshop space.
 - b. Each participant received a sensor (for psychophysiological data collection, such as heart rate and electrodermal activity) and a colored wrist ribbon corresponding to the same sensor number.
 - c. The placement of sensors and ribbons was conducted in a private area, ensuring participants' comfort, privacy, and confidentiality.

ii. Initial Procedures

- a. Participants filled in the Informed Consent Form (Appendix B).
- b. They performed soft physical and breathing exercises to establish baseline physiological readings.
- c. Participants completed the Empowerment Survey, assessing their initial perceptions and self-efficacy levels.
- d. Curinga (Joker) introduced the ACA (Artistic Creative Activation) segment, consisting of theatre games and short scenes to prepare the group's body and imagination.

iii. First Stage – Knowing the Body

- a. 3.1. Focus: body awareness, group integration, and creative potential.
- b. 3.2. Activities:
- c. Self-description through non-traditional formats, using gestures, sounds, or spatial compositions.
- d. "1, 2, 3 de Bradford", promoting attention, coordination, and trust within the group.
- e. Improvisation exercises followed by reflection moments, articulating sensations and discoveries. (Figures 25-27 illustrate these exercises.)



Figure 25 - Group doing the game: "1,2,3, Brad Ford"



Figure 26 - Group doing the game "Word to image"



Figure 27 - Group doing the game "Word to image"

iv. Second Stage – Making the Body Expressive

- a. Focus: developing expressiveness through movement, sound, and imagery.
- b. Activities:
 - "Automobiles" – embodying the dynamics and rhythms of vehicles to explore spatial awareness and energy.
 - "From music to scene" – translating musical stimuli into physical and visual expression.
 - Sensitive games, adapted from Augusto Boal's *Aesthetics of the Oppressed* (2006), where participants transformed music into drawings and short texts.

Figures 28-31 illustrate examples of these exercises.



Figure 28 - Expressive body games - "Automobiles"



Figure 29 - Expressive body games - "Automobiles 2"



Figure 30 - "From music to drawing and text - Sensitive games".

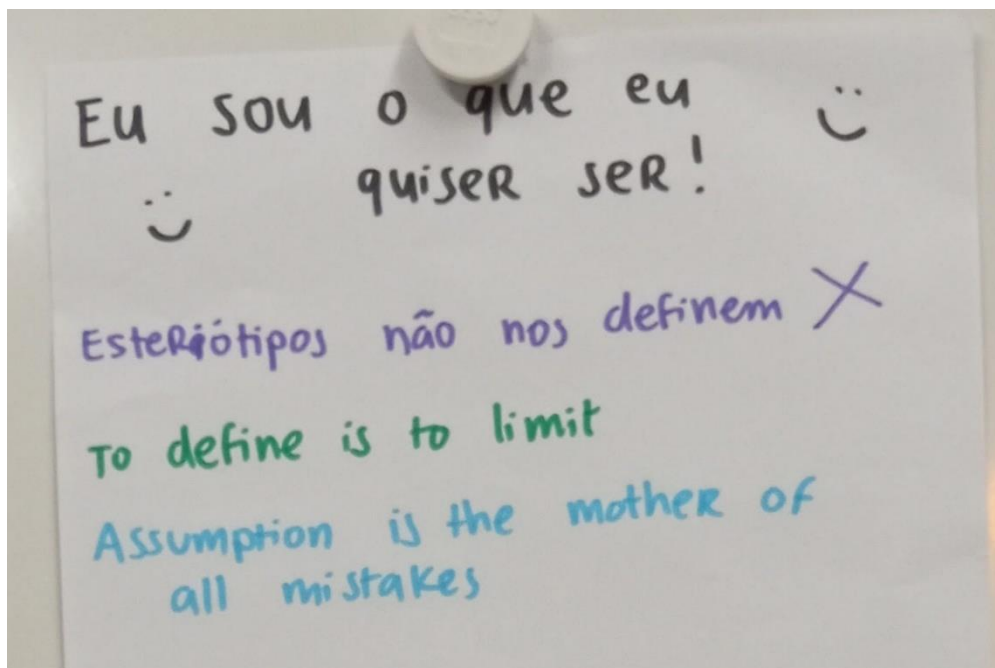


Figure 31 - From music to text: result example

v. Third Stage – Theatre as Language

- a. Objective: transform material from previous stages (images, words, emotions) into theatrical language.

b. Activities:

- First degree – creation of a static image representing a central conflict or situation.
- Second degree – Image Theatre: development of a sequence of images showing what happens before and after the conflict – “Dark Street” and Domestic violence” scenes
- Third degree – Forum Theatre: addition of movement, dialogue, and collective discussion about the issues presented.

Figures 32-38 illustrate examples of these activities.



Figure 32 - Image summarizing conflict from group1



Figure 33 - Image summarizing conflict from group2



Figure 34 - Image before conflict from group2



Figure 35 - Image after conflict from group2



Figure 36 - conflict with lines and movement added - group1



Figure 37 - conflict with lines and movement added - group1



Figure 38 - moment of discussion

vi. Fourth Stage – Theatre as Discourse

- a. Participants created complex scenes using Forum Theatre techniques.

- b. The group was divided into two, and each subgroup developed and presented a forum scene, followed by discussion and intervention.
- c. Scenes explored social and relational conflicts, such as family or community dynamics, testing alternative outcomes through role exchange.

Figures 39-40 illustrate examples of these scenes.



Figure 39 - Theatre as discourse: complex scene called “Dad’s scene”



Figure 40 - Theatre as discourse: complex scene involving a family dinner (switching the "oppressed" actress)

vii. Final Steps and Surveys

- a. At the end of the workshop, participants filled out the Workshop Perception Survey.
- b. Approximately one month later, participants completed a follow-up Empowerment Survey and a feedback form. (Appendix B)

viii. Data Analysis Procedure

- a. The research team created a timeline to synchronize multiple data sources:
 - Direct observation
 - Curinga's (Joker) notes
 - Psychophysiological data (sensor readings)
 - Participants' reflections
 - Survey responses
- b. Moments of interest were identified (e.g., emotionally intense scenes or significant role changes).
- c. Each moment was cross-analyzed using all available data to correlate subjective experiences with physiological responses.
- d. The psychophysiological timeline was reviewed again to identify additional moments of neurological variation not perceived in real time.

- e. The analysis procedure (steps 8.2–8.4) was repeated as necessary to ensure data consistency and completeness.

4.4. Results

4.4.1. Main results

The usage and inclusion, in the evaluation protocol, of biosensors (capturing Heart Frequency and Electrodermal data) and videorecording (of all workshop) as means of collecting data allowed assessment (surveys, data from observation) to another level. The inclusion of biosensors and video as means of collecting data took the assessment. Video recording was important for synchronizing and further detailing all the readings from the observational sheets and psychophysiological data. The biosensors, as peripheral measures, are always complementary to the self-report measures, either by showing us that involvement was lower than expected, or by showing that the decrease in EDA and HR rates shows the development of empathy and commitment to the proposed work. It is precisely this complementarity that raises the results to a new level of confidence.

4.4.2. Empowerment levels

The empowerment level was assessed through a survey comprising eighteen statements, inspired by research on women's empowerment and psychological empowerment. A Portuguese adaptation (Luz et al., 2020) of Spreitzer's (Spreitzer, 1996) scale for cognitive empowerment in a health context was used as a basis to construct a survey that would address empowerment issues. Cognitive empowerment is the process of personal development through improving cognitive skills such as critical thinking, problem solving, and informed decision-making. As deeply discussed in previous chapters, we also consulted a comprehensive review by Richardson (2018) on studying and observing female empowerment to understand and include questions specific to female empowerment. We also took into account Singhal's (Singhal, 2001) study on female empowerment in India to identify recurring issues to include in the survey. Finally, we conducted a contextual study to determine which questions would be appropriate for our short sample with lusophone women, including those from Brazil and Portugal nationalities. Considering that Spreitzer's cognitive empowerment is based on four factors: Meaning, Competence, Self-Determination, and Impact, we examined other texts to

identify statements representing these areas to address female empowerment. This is how it turned out:

Category	Survey Statements
Meaning	- I am the main responsible to maintain my home financially. - I've never had body image issues. - I've never compared my own body image to the patterns in the media.
Competence	- I am a woman who is confident that my job is suitable for women. - I had access to sexual information and contraceptives when I was a teenager. - Through the government or my resources, I have easier access to contraceptives. - I am not afraid to walk alone in a dark street.
Self-Determination	- I am confident that I can choose when to have children. - I do not need to ask anyone's permission to go out. - When I was a child/teenager, my brothers and my boyfriends had the same permission to go out with friends as I did. - I think I can go anywhere I want.
Impact	- If I were a man, it would be enough to earn more money in my job. - My family has invested in my economic independence as much as in my brother's career. - In my house, men and women share equally in cleaning and tidying the house.

- I am not the only one responsible for making the supermarket list at home.
- I am not the only one responsible for washing clothes.
- Because of my body image, I've never lost jobs or opportunities.

Table 6 - Categories and surveys statements

Participants responded to each statement using a 0-to-5 scale, where 0 referred to strong disagreement, strong agreement, and 3 indicates a neutral stance. Scores above 3 reflect agreement (positive deviation), while scores below 3 show disagreement (negative deviation).

According to the original study design, empowerment levels were to be assessed at two time points: on workshop day, and one month later. To analyze the matched responses for two moments, we employed the Wilcoxon signed-rank test (Virginia University, 2025) which is appropriate for small sample sizes and non-parametric, paired data. The analysis revealed both statistically significant and marginally significant results, as summarized in Table 7.

This integrated and context-sensitive approach to measuring empowerment aligns with best practices in the literature, emphasizing that empowerment is not a single-dimensional construct but one deeply embedded in the cultural and social fabric of women's lives. As such, the survey results presented below reflect these complex and interrelated dimensions.

Question	Initial Mean	Follow-up Mean	Difference	P-value	Trend	Significance Level	Statistical Result
As a teenager, I had access to sex education and contraception.	4,86	3	-1,86	0,0422	decrease	significant ($p < 0.05$)	$w=0.00$, $p=0.042$, $r=0.77$
I have the feeling that I can go wherever I want	3,86	2,43	-1,43	0,0571	decrease	near-significant ($0.05 \leq p < 0.10$)	$w=1.50$, $p=0.057$, $r=0.72$

I am not afraid to walk down a dark street alone.	1,57	3	1,43	0,0781	increase	near-significant ($0.05 \leq p < 0.10$)	w=3.00, p=0.078, r=0.67
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Table 7 - Significant Results in Empowerment Surveys

In the empowerment survey, the first statement had a significant result (<0.05) from the first to the second survey to the follow-up survey. The second statement showed a near-significant result (0,571). Both affirmations had a decrease from the first to the second. The third statement also showed near to significant results (0,0781) with an increase in data from the first to second survey.

The point with increasing coincides with the theme addressed in the “dark street” scene, in which many practical solutions were discussed among the participants. At the same time, the two decreasing points involving issues addressed in the theatre forum scene of a family dinner – called “Dad’s scene” – in which some conflicts were more difficult to be solved in practical way, during the forum scenes and groups discussion.

4.4.3. Influence in practice

Analyzing only the first survey to identify the questions with the lowest empowerment scores, we calculated the median scores for each question and selected the top five with the lowest medians (Table 7). We also considered the interquartile range (IQR) to assess the variability in responses, which shows how consistently respondents felt about each question. This approach highlights areas where respondents feel less empowered and where opinions are more divided.

Topic	Statement	Median	IQR	Interpretation
Safety Concerns	"I'm not afraid to walk alone in a dark street"	1.0	2.0	Low feelings of safety with high variability, showing that personal safety is a concern.

Financial Independence	" I am the main responsible to maintain my home financially."	1.0	0.0	Consistent low levels of financial independence, suggesting dependency or shared financial roles.
Gender Wage Gap Perception	" If I were a man, it would be enough to earn more money in my job."	2.0	-	Perceived gender-based wage discrimination, with participants believing that gender affects earnings.
Body Image Issues	" I've never had body image issues."	2.0	2.0	Generally negative body image experiences, with significant variability across participants.
Childhood Gender Inequality	" When I was a child/teenager, my brothers and my boyfriends had the same permission to go out with friends as I did."	2.0	2.0	Varied but generally restrictive experiences, indicating gender-based freedom differences in youth.

Table 8 - Survey empowerment individual analysis

Post-analysis showed that the "empowerment survey" identified and addressed the same oppressive issues that emerged in improvised scenes. This evidence demonstrated that the Theatre of the Oppressed can provide a safe space in which participants can discuss their genuine experiences of oppression through games and indirect methods. Still, it is not possible to ascertain whether this practice will result in tangible changes in future life, given that it is contingent upon broader social and collective transformations.

Regarding the quantitative data collected through the psychophysiological sensors, although we are referring to a small group, these reveal some intriguing results that warrant discussion.

Table 9 and 10 provides the average and percentage EDA and HR measurements for all participants, recorded at three pivotal moments during the workshop.

First, record of baseline data upon arrival of participants, before the start of the workshop s. Second, during the initial phase of the workshop, while participants introduced themselves. Third, during the enactment of the scenes.

	1) baseline	2) introduction	3) workshop
EDA (μ S)	5,34	11,6	8,55
HR (bmp)	70,78	84,12	80,98

Table 9 - EDA and HR average measures in key moments

	1) Baseline	2) introduction	3) workshop
EDA	5,34 (μ S)	117,08%	59,94%
HR	70,78 (bmp)	18,84%	14,40%

Table 10 - Variation in percentage from 1) baseline to 2) introduction and to 3) workshop

We observe the following trends: The average EDA was 5.34 μ S at baseline, rising significantly to 11.6 μ S during the introduction—a 117% increase. During the scene representations, the EDA averaged 8.55 μ S, reflecting a more moderate 59.94% increase compared to baseline. Similarly, heart rate measurements started at approximately 70.78 bpm at baseline, increased to 84.12 bpm during the introduction (an 18.4% increase), and then averaged 80.98 bpm during the rest of the workshop.

This stabilization in both EDA and HR may show the maintenance of a physiologically stable yet engaged state. Such a pattern could reflect adaptive emotional processing in response to the initial heightened reactivity, which—particularly when considered alongside qualitative data—may suggest an embodied experience of the session. If sustained over time, this type of regulated engagement could have meaningful implications for psychological well-being, as highlighted in previous studies (Mastandrea et al., 2019).

4.4.4. Qualitative analysis

Following Creswell (2014) guidance on deductive qualitative analysis, we conducted a theory-informed content analysis of nine open-ended surveys. In practical terms, this means we began with a set of predefined theoretical categories that guided how we read and interpreted the data.

Each participant's narrative responses were organized into two sets of texts: (i) immediate post-performance *scene descriptions* and (ii) later *reflective responses*.

In the results, *Call-to-Action* and *Community Connection* were strongly emphasized in the immediate scene descriptions. *Personal relevance* remained high in the later reflections, indicating that most participants continued to relate the workshop to their daily lives even after some time had passed. Elements of *creativity/expression* and *emotional impact* became slightly more prominent in the reflective responses, suggesting that written reflection encourages more affective and imaginative interpretations. References to *social-justice/gender* issues remained stable across both survey moments.

Although this deductive qualitative strategy offers only an initial overview—because it is a brief and rapid-scan analysis—it allowed us to identify patterns of resonance and thematic emphasis within a small dataset. As Creswell notes, such preliminary findings can serve as a foundation for deeper, inductive exploration in future stages of the research.

4.5. Discussion

This study showed that even within a relatively brief timeframe, the outcomes in artistic expressiveness and self-analysis for empowerment were not only significant but also generated a range of valuable contributions to the field of arts research.

Beyond the inherent subjectivity of artistic creation, Theater of the Oppressed (TO) practices proved too powerful in bringing issues of oppression to the stage. More than that, they provided non-artists with the tools for artistic expression, fostering awareness and emotional well-being, all while maintaining the artistic integrity of the work produced.

To deepen our understanding of these processes, we observed participants' Heart Rate (HR) and Electrodermal Activity (EDA) throughout the Forum Theater performance, both recognized

as key psychophysiological indicators of stress (Immanuel et al., 2023; Rahma et al., 2022). The results offered valuable insights: stress levels peaked in the initial introduction phase, reflecting heightened tension and emotional activation. However, as the workshop progressed, a noticeable shift occurred. Participants exhibited greater relaxation during the scene presentations, suggesting an increase in psychological safety. This pattern indicated growing confidence and security within the group, reinforcing the effectiveness of TO techniques in establishing a space where artistic exploration of oppression could emerge freely.

The study sought to observe physiological changes and bodily reactions throughout the workshop, mapping the intersection between emotional states and artistic engagement. While EDA and HR primarily measure stress responses rather than direct empowerment, HR provides additional layers of interpretation, particularly in its relationship to emotional regulation when navigating challenging or stressful events, a skill actively required during the workshop's activities. The physiological trends observed align closely with the study's objectives, providing data that supports the broader research inquiry.

When cross-referencing this biometric data with surveys and open-ended responses, a clearer picture of participants' experiences emerged. All participants reported being influenced by the forum scenes and the discussions on oppression. Some went further, bringing their own lived experiences of oppression into the performed scenes, a powerful testament to the workshop's impact.

Perhaps one of the most compelling findings came from cross-referencing the forum scene themes with the empowerment surveys. Notably, the subjects explored in the forum scenes directly correlated with the lowest-scoring questions in the empowerment assessments. This suggests that the very issues participants struggled with most in their lived experiences were the ones they chose to explore theatrically, validating the forum theater methodology as a potential tool to creating a propitious space to emerging oppressions through art.

4.6. Conclusions

This study highlights the vast potential of weaving together neuroscience, Theater of the Oppressed, and empowerment studies. By grounding our practices in both art and science, we sought to honor the full sensorial, emotional, and cognitive embodiment of spectatorship, without fragmenting the experience into isolated data points.

The findings from the "Aya" workshop and related experiments reaffirm that empowerment is not a fixed or linear achievement. It is fluid, deeply contextual, shaped by both personal histories and collective experiences. While some scenes, such as the "Dark Street" scene, triggered an immediate sense of agency and produced a brief rise in empowerment scores, others, like the scene involving family investment in daughters versus sons, exposed the enduring complexity of systemic oppressions, where no easy solutions surfaced. These contrasting outcomes illustrate that empowerment cannot be measured solely by immediate reactions but must be understood through deeper and longer-term processes.

The study shows that integrating artistic and scientific methods provides effective tools for assessing empowerment and engagement, while maintaining both precision and sensitivity. However, as the analysis revealed, refining the selection of critical emotional moments, moving beyond manual selection to more systematic methods, will be essential for future studies seeking greater precision in capturing physiological and emotional shifts.

Ultimately, in joining aesthetics and science, we are not merely seeking validation for art through numbers. We are advocating for new spaces where art can remain politically alive, empowering individuals and communities to recognize, feel, and act upon their own histories of oppression and liberation. Our task, like the spider weaving its web, remains ongoing: to strengthen these connections, to support critical reflection, and to create safe places where transformation becomes possible.

To this work, a PhD on science and technology of the arts, and also on literature, culture and contemporaneity, seeing as a PhD that her student did it beyond some kinds of fear, these data are the most important spores here, the empowering potential of the art, so not just a hypothesis, is some kind of plausible reality that neither government nor oppressive system could steal from us.



5. ASHANSÚ¹⁴ - The theatre play "Abaeté"



[Playlist of Ashansu](#)

*Baba Olorum xêxê salerojá
Baba Olorum xêxê salerojá
Aê Nirê, Nirê ô
(Carlinhos Brown e Mateus Aleluia)*

¹⁴ For the Jeje people, there is a pantheon where the voduns of the earth, riches, and diseases, linked to life and death, are grouped together. Azansu is the leader of the Pantheon. Azamsu or Ashansu, meaning straw man, is also known as a quality or mode of the orisha Olorum or Obaluayê for practitioners of Candomblé or Umbanda.

Ashansu or Azamsu is the chosen metaphor for naming this chapter. Ashansu is a quality associated with Obaluaê, the deity of earth, healing, and sickness; it's also the title of a celebrated song from Bahia that features words of African origin.

In addition, it is a song to Obaluaê, or Omolu. He is the lord of the spirits, mediator between the Ayê (the earth) and the Orum (heaven or spiritual word); his importance goes far beyond appearance. He understands sorrow and suffering deeply yet believes that everything can be conquered with bravery and a desire to live. The song resonated deeply with my experience of migration, prompting further research into its significance, and then I searched deeply for its meaning. The conclusion: this word is here also because of the mythological meaning.

Abaeté is an indigenous Tupinambá word that means "brave man" regarding the brave and healthy indigenous people who lived in the region in ancient times. However, Abaeté is a place, a place where these indigenous people lived. There is a lagoon, a dark lagoon, as described by Dorival Caymmi¹⁵. This dark lagoon is rounded with white sand, and it is involved in so many mysteries, stories about fear, ghosts and the sound of drums, the "batucajé".

The Lagoon Abaeté and its surroundings is a place of environmental preservation and, for the Afrobrazilians, a sanctuary to Oxum, the Yoruba Orisha associated with love, sexuality, fertility, femininity, water, destiny, divination, purity and beauty, and the Osun River, and of wealth and prosperity in Voodoo culture. Finally, for me, Abaeté is a play, as I will explain in beginning of the chapter.

"Abaeté" is a play that I wrote, directed and performed with my theater company in Portugal. It is a theater puppet play, suitable for families (grown-ups and children), with powerful transportability, as one of the main *mise-en-scène* characteristics. The play was considered suitable for a variety of venues—including outdoor spaces, theaters, and classrooms—because it could be set up quickly and easily with minimal puppets, simple materials, and straightforward operating systems.

The play was performed in 8 cities in Portugal and 2 cities in Bahia: Feira de Santana and Salvador – Brazil (2023-2024), a presentation in Oslo – Norway (2025) and a presentation

¹⁵ Very prominent Brazilian musician, songwriter and singer from Bahia. Author of iconic songs like "Have you be to Baía?" it is featured in the 1944 animated Disney film *The Three Caballeros*.

in Luanda - Angola (2026) with grants from [Direção Geral das Artes](#), [Fundação GDA](#) and [Fundação Calouste Gulbenkian](#). The show was written during the doctoral process and ultimately reflects the doctoral thesis. Differently from the other chapters until here, shifting focus from spectatorship to self-empowerment as artist, valuing my transformative processes in this work. Regarding the questions posed by the thesis are intrinsic to the process of creating, presenting and developing the text and the show itself.

The play is inspired in a children's theatre composition for orchestra by Prokofiev "Peter and the Wolf"(1936). When adapting the story for a puppet show, several changes were made: Peter became Mari, the setting shifted to Abaeté Lagoon, local animals replaced the originals, the musical score incorporated songs about Abaeté and Afro-Brazilian cultures, and the overall narrative adhered to the original artwork. The theme is specific to each character, animal, or human, as in the original.

The creative process required significant effort and refinement to define all the issues and construct the screenplay regarding the challenge of composing images from a work of art that initially only had sound.

5.1. Peter and the wolf

As previously stated, Peter and the Wolf is a theatrical composition for children, featuring orchestra and narrator, composed by Sergei Prokofiev. The work, which tells a Russian folktale, premiered May 2, 1936, in Moscow. Since that time, it has introduced young listeners to classical music and helped train them to recognize the distinct sounds produced by various instruments of the orchestra.(Shwarm, 2025) Abaeté has this composition as a reference to build another artwork.

The first step was analyzing "Peter and the Wolf" in this drama structure to decide what is important to our play. The structure found could be seen below:

1. Characters Introduction
2. Peter goes to the meadow and finds the little bird
3. Duck gets out of the fence and goes to the lake
4. Little bird picks on duck and they argue
5. Peter notices the cat attacking the bird, and the bird running up the tree. Duck stays in lake

6. Peter's grandfather comes and argues with him because a wolf might appear
7. He takes Peter home. Wolf appears. The cat climbs up the tree. Bird on one side, cat on the other. Duck gets scared and runs out of the lake
8. The wolf runs off and eats the duck
9. Peter sees this and gets a rope to catch the wolf
10. Peter climbs the stone wall and goes to the tree to talk to the little bird
11. Peter sees the whole situation and decides to get a rope to catch the wolf. Peter climbs the stone wall and goes to the tree to talk to the little bird
12. The little bird comes down to tease the wolf
13. Peter ties a knot in the rope and makes a trap for the wolf
14. Hunters arrive, Peter asks them not to shoot, and they all take the wolf to the zoo

From this structure was chosen the changes for the play: Peter is Mari, a girl. The cat is a jaguar- Suçuarana (or puma) very typical in South America and at risk of being extinct. The friends: a bird and a duck, will be transformed to bird (specifically Tucano) and a Capybara. They are friends and have little arguments frequently, being also the comic relief in dramaturgy. What about the wolf? Could it be capitalism? Is it perhaps the gentrification process? Could it be climate change? Which resulted in an in-depth study of the socio-political issues surrounding the Abaeté lagoon.

5.2. Abaeté lagoon and contexts

As stated before, Abaeté is a lagoon in Salvador da Bahia. The lagoon is more than a geographical place and is more than the poetical and bucolic place seen in the songs. The lagoon and its contours have a community, social constructions as fishers, vendors and washers who built a community in the rounds of the lagoon. With the Salvador city (1970s), this initially forgotten place turned into a very desirable place for healthy people. The gentrification is causing a fight. So, companies want to destroy the lagoon and its sand to build luxury buildings, based on governmental decisions without popular participation.

Guimarães da Silva (2007) considers that in this case “delineia-se, de forma pioneira nesta cidade, uma tentativa de associar a defesa comunitária, um suposto contra-projeto de sociedade e uma luta propriamente social, de modo a juntar contracultura, ação política e sensibilidade ecologista emergente” (Guimarães da Silva, 2007, p. 133) (*a pioneering attempt was made in this city to combine community defense, a supposed counter-project for society*

*and a real social struggle, in such a way as to bring together counter-culture, political action and an emerging ecological sensibility)*¹⁶.

The Abaeté community fought for the preservation of the dunes and lagoons of Abaeté, which became a protected area in 1987, as a pioneering action of conservation in Brazil. The author shows the importance of the cultural heritage, songs and artists in socializing the place and convincing governments to preserve it. In this way, ecological preservation is not shown as an isolated question, but a question that needs to be interwoven with community values, practicalities and uses of the territory to be stronger, and wins against the alienated modernization side.

At least it was clearly decided: the wolf in "Abaeté" is the humans, moving the world under capitalist rules.

An unexpected issue in this context was raised during our tour. The ecological issues and the pioneering ways of fighting for territories and identity could be about Brazil, but also about Portugal. Here, the recent issues of housing, tourism *versus* community and gentrification appeared not only in the newspaper but also in the quiz distributed anonymously at the end of our presentations to the audience. When the team made this crush, the play received a new level of understanding.

And the desire had been confirmed by various anonymous answers in a survey distributed after shows in seven presentations in Portugal. This survey has the question: "Regarding the show being set in Bahia; do you think the issues it deals with could be set in Portugal? If that is the case, why? "

Regarding the show, it is set in Bahia. Do you think the issues it deals with could be set in Portugal? If so, why?

- | | |
|----|--|
| 1. | Yes, especially in the more rural areas, there is a lot of political exploitation and attempts to exploit the environment. |
| 2. | Yes, more and more value is placed on the commercial and monetary than on local identity and culture. This situation is very common in the city of Porto |
| 3. | Yes, because of the housing crisis |

¹⁶ [Free translation]

4.	Yes, because I feel that even now Portugal is "losing" its land and identity.
5.	Yes, because of the environmental and their political differences between one country and another. The constant attack on Mother Nature in favor of industry affects the world as a whole. Portugal is no different.
6.	Yes. Issues surrounding the destruction of ecosystems due to greed are, unfortunately, present in all parts of the world.
7.	Yes, the issue of the destruction of ecosystems through greed are, unfortunately, present in all parts of the world.
8.	Yes, there is less and less respect for our animals and nature because of "welfare".
9.	Yes, deforestation in building hotels is a common issue
10.	Yes, because real estate speculation and environmental insensitivity are commonplace
11.	In a way, yes, with the struggles for territory that occur everywhere.

Table 11 - Answers from survey

These answers are quoted there in order to show it with this small sample. Responses given anonymously and voluntarily offered the team greater insight into the game's effect on its audience. How is possible to discuss other realities in order to think about our reality? For example, in discussing a reality so personal (my relationship with the lagoon of Abaeté), the Portuguese audience could see some issues lived also in Portugal.

5.3. Dorival Caymmi and Afro-Brazilian music

Dorival Caymmi (1914-2008) was a Brazilian singer, composer and songwriter. Often his songs figure fishers, daily routine in the community of Itapuã and Salvador - Bahia, the Orishas and afro brazilians divinities. His songs feature a deep love of Bahia.

The author has several proeminent songs from Brazilian history, some of them recorded by the Portuguese-Brazilian singer Carmem Miranda, like "O que que a baiana tem?" (What does bahiana have?) (Caymmi & Miranda, 1929). This song was so popular in Carmem Miranda's movie "Banana da Terra" (1939) The fact that this and other songs of hers popularized an image about Brazil did not happen without controversy. The singer, who was a white woman singing black Brazilian music and possibly reinforcing US-Brazilian stereotypes, faced harsh criticism, even despite her great popularization.

Despite these facts, the importance of Dorival Caymmi as a musician who preserved a part of Bahia, and a part of its people in his songs. One of the most renowned songs is "A Lenda do Abaeté" (The Legend of Abaeté), which offers a poetic portrayal of the lagoon while also addressing its enigmatic qualities.

This song was chosen as the principal theme for our adaptation of "Peter and the Wolf". The Lagoon of Abaeté, a bucolic place, has been the subject of great songs and adaptations. It was clearly a large musical universe to compose a musical history.

5.4. Theater Play Abaeté - drama and score

It is precisely in this context that the play was built on this structure: Abaeté is a tale happening in a lagoon at an undefined age. We have the father and a collective of fishers. We have the mother and a collective of washers; we have Mari. Learning the work and also being a child. She was playing in the lagoon during her parents' work time. They are Afro-Brazilian which means skin, clothes and physical characteristics.



Figure 41 - Pictures by "Abaeté" show © Renato Marques

The story opens with an uneasy atmosphere as dead fish begin to appear and talk spreads about a jaguar frightening the locals. Mari senses that these mysteries are drawing her toward a significant adventure, and she trusts in her abilities.



Figure 42 - "Pictures by "Abaeté" show © Renato Marques

Mari doubts the jaguar's guilt and shares her feelings with her animal friends – “It is not possible. Suçuarana is a force of nature, elegant, adventurous.” – She says.

Strange events continue as Mari, with confidence, enters the forest alongside Tuco and Capi. They find that the real issue is not a jaguar, but an illegal hotel built by cutting down many trees. The story shifts to reveal real-life elements from the Abaeté community, maintaining a sense of universality. The true antagonists are two men inside the hotel planning to demolish the lagoon for financial gain.



Figure 43 - Picture by Abaeté Show © Helena Matos

They return to the lagoon and set a trap for the jaguar to protect her from hunters, hoping to buy time to explain the truth and prevent them from killing her.



Figure 44 - pictures by "Abaeté" Show © Renato Marques

Mari, as the heroine, stops the hunters from killing the jaguar and persuades the villagers to oppose the true adversaries. Instead of fighting a war, they take democratic action—organizing a public protest and reaching out to the press for political solutions, which succeed. The scene ends with Mari leading the demonstration, accompanied by a voiceover: "Mari, Maria, Mariana—this is the girl whose courage, together with her friends, averted disaster."



Figure 45 - Picture by Abaeté Show © Helena Matos

The story transitions to a blackout, then shifts to scenes showing the rebuilding of both the physical and symbolic elements—specifically, the lagoon. In the epilogue, it is revealed that the lagoon became both attractive and useful following the triumph, though the hotel was no longer present.

This victorious end is not entirely the truth. Even Abaeté, which is officially a preservation park, faced several protests throughout history. During the theater play protest scene, real audio is mixed with song, showing real phrases from the local people and about the project to build a pump station over the lagoon. The idea of a final happy ending comes from Afrofuturism, which is an art style that focuses on Afrocentric futurism. Unlike European futurism, Afrofuturism does not want to build dystopias, but utopias.(Elia, 2024). Where, after hundreds of years and centuries of violence, the people of Africa and the Afro diaspora could see black people in a happy ending, creating hope. I hope for action, even one more time, rather than waiting (Freire, 2000).

Within Afro-Brazilian cosmology, Orishas and deities are not portrayed as subjects in religious performances, nor does faith serve as a theme in the play. The actors included wear costumes that evoke the Orishas, yet refrain from direct representation or commentary; our presence remains secondary to the characters depicted. My attire draws inspiration from Oxum, the lagoon divinity, while Miguel's costume references Oxóssi, the forest deity. We intentionally incorporated colors without excessive emphasis, ensuring that our role remains supportive and that the audience's focus in puppets.



Figure 46 - Photo collage:
(Left) Costume of Vida Oliveira in the play | (Right) Illustration from Oxum.



Figure 47 - Photo collage
(Left) Costume of Miguel in the play | (Right) Illustration of Oxossi

The colors are reflected in the clothes of the puppets. Mari uses yellow, as Oxum. Mother uses blue, as Ogum; father uses white, as Oxalá. As in a subtext, they are practitioners of Candomblé or Umbanda. But that is not in question. It is just a cultural fact. The purpose is to illustrate different ways of life, excluding none of them, in a way that feels authentic.



Figure 48 - Scene of Abaeté Show ©Renato Marques

5.5. The Portuguese as a language

Portuguese is a language rooted in Portugal, and it serves as a crucial link between the colonial past and the present day. However, this issue, the language as a colonial heritage, is not unique to Portuguese speakers. For instance, many British or US people are unaware that Nigerians speak English, and some Portuguese speakers forget Brazilians speak Portuguese and not "Brazilian" (Instituto Camões, 2025), Canadians from Quebec, complain about the derogatory way in which say Canadian French, or French Quebecois is not French to people from France. (Nadaeu, 2024)

In Brazil, (Gonzalez, 1985) challenges this prejudiced view of the way people born in former colonies speak, affirming this language and calling it "Pretuguês"—a blend of "preto" (black) and "português" (Portuguese), reflecting the black experience in Brazil. This term emphasizes the linguistic hybridity and the resilience of Afro-Brazilian identity. The author explains also the processes of pretugues as a language, as well as the nannies who educated children were black women, speaking theis "pretuguês" including the black words in the protuguese child's vocabulary, singing african songs to put them in bed.

Language in *Abaeté*, as stated by (Gonzalez, 1985) serves as a site of resistance, particularly through incorporating *Pretuguês*.

By embracing dialogue with linguistic elements rooted in African and indigenous heritage and the lived experiences of Afro-Brazilian communities, the play disrupts the dominance of normative Portuguese, if only for a few minutes during the performance. For example, expressions and rhythms derived from Candomblé and Brazilian colloquialisms reinforce the play's cultural authenticity and political stance. Aesthetically, this language choice is not the only reason.

The erasure of colonial heritage and colonial thinking is reflected in Europe's language and accent perception. This colonial mindset remains pervasive, even in post-colonial societies like Brazil. In some regions, the legacy of colonialism is still clear, with certain states viewing others as remnants of a colony. Often, in seeing those who are permanently finding for the "correct" Portuguese (Bagno, 2007; Gonzalez, 1985).

Portuguese is one of the most widely spoken languages globally, particularly in the Global South. However, Portugal itself was not born with the Portuguese language as we know it today. In the 12th century, when Portugal became an independent nation, the official language was Galego-Portuguese. It was not until 1225 that documents written only in Portuguese became common. Two hundred years later, during the age of Portuguese expansion, the language was established as the official language in colonies across the seas. (*Camões Instituto de Cooperação e Da Língua Portuguesa*, 2025)

Frantz Fanon (Fanon, 1963) in *The Wretched of the Earth*, argues that the colonized always feel different from the colonizer, trying to understand and adapt, but often missing the "correct" posture in their attempts. Colonized is taught to admire colonizer and language of colonizer, but even when they speak the language and absorb the European culture, they feel despised and out of place, generating an identity crisis. (Fanon, 1963) in this sense, belittling the language / accent or way of speaking is yet another way of belittling the colonized and their ability to be on an equal footing with the European.

It was precisely at this point that I could see my spores of empowerment. Being a migrant from Bahia and a woman of mixed-race, traveling with the play around Portugal and outwards feels like spreading seeds and intercultural spores. Both ways and accents are

acceptable, and we have cross-cutting issues, like the struggle for democracy and environmental concerns, that could be better fought together.

As well as the African influence in Brazil can be easily noticed, it's important to recognize that Indigenous contributions also shape our national language. Both were initially disqualified from the dominant linguistic standard as unrefined. In this context, language itself has become a tool of racial discrimination and social exclusion. For example, the use of "r" instead of "l" in words like *Framengo* instead of *Flamengo* can be traced back to African linguistic roots, especially from the Bantu family. Similarly, the shortening of words like "você" to "cê" or "está" to "tá" reflects the informal and creative ways in which Brazilian Portuguese has adapted. These forms, which some might call incorrect, are part of what Gonzalez refers to as *pretuguês*. It is essentially a linguistic appropriation and transformation, not a passive acceptance of the language of the colonizer (Gonzalez, 1985).

In this sense, the accent is not a "wrong" form of Portuguese; it is a way of speaking, of being understood, and of standing in resistance. When white people, whether in Portugal or in privileged neighborhoods of Brazil, claim to speak the "correct" Portuguese, they are reflecting a colonial mindset that persists.

Even though this issue has been thoroughly addressed in academic circles, and even in many government actions (as all the points to public grants in Portugal), it remains unresolved in everyday life. It was not resolved when I moved from Bahia to Rio de Janeiro, and it's still not solved in Portugal today. Frequently, I explain I speak Portuguese, that certain words or expressions are not wrong, but different. I also often have to explain that Brazil has a rich Afro-Brazilian culture that deserves recognition and respect.

And the tour was a kind of hope. In a little audience quiz that was distributed anonymously to spectators, the majority (80%) said comprehend the play, 20% said they had some difficulty, and nobody said they did not comprehend it.

Was the Portuguese spoken in the play understood?

15 answers

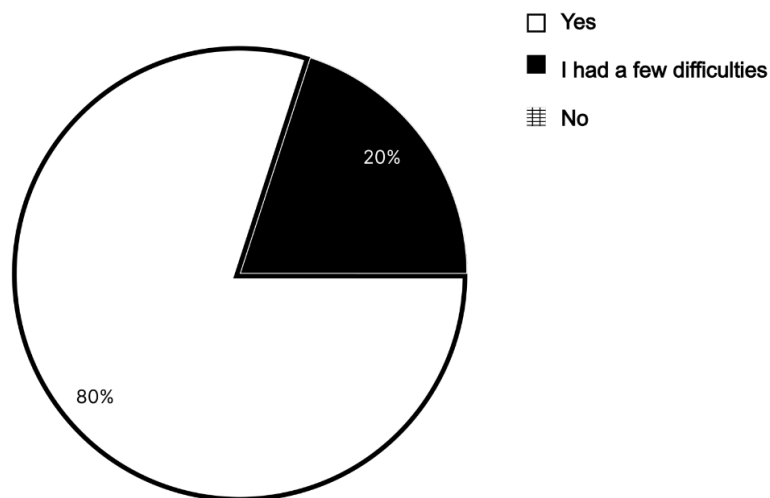


Figure 49 - - Graph of portuguese comprehension

Most answers are Portuguese, considered Portuguese/white / European. It is not possible to affirm the comprehended because they are Brazilians.

What is your ethnical majority group?

15 answers

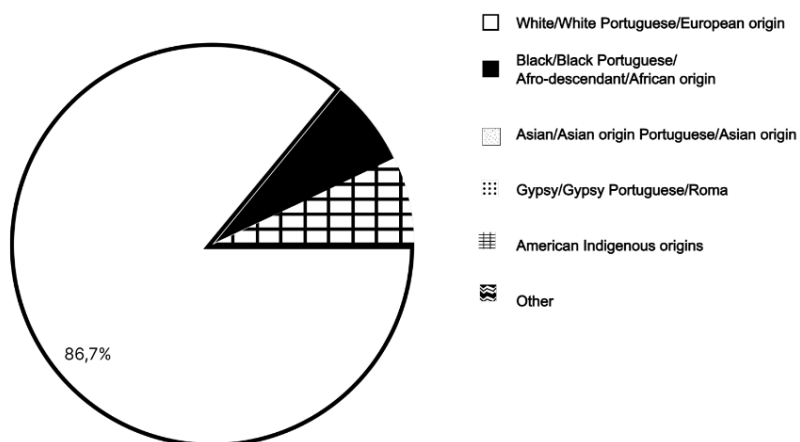


Figure 50 - Ethnical distribution of audience aswers

In this way, Abaeté has been chosen not only as a place but also as a language of resistance in my action as an immigrant artist in Portugal. As well as an evasive mode of unique history (Adichie, 2009) that brings another point of view about the racial-mixed Brazil. Is a history about important issues from the Abaeté community, crossed by Portuguese issues. And the accent comes as another layer in the play.

To this extent, it was important to give the script the Abaeté accent, not just the color of the puppets, not just the story. The accent is clearly present throughout the music and throughout the dialogues, as the play has a small moment to be close to these people, history and community.

Text in portuguese	Text in afro-american English ¹⁷
MÃE - Como é? Continua sem peixe, amô?	MAMA – Ay, baby. Still no fish?
PAI - cada dia pió.	PAPA – Man, it's gettin' worse every damn day.
MÃE - Valha-me meu senhor do Bonfim.	MAMA – Lawd, Lord Bonfim, we need you now!
PAI - Okê arô meu pai, Oxossi, que ele nos proteja que hoje a noite nós pegamos essa onça. Leve a Mari mais cedo pra casa.	PAPA – Okê arô, my father Oxóssi! Watch over us, 'cause tonight? We gon' get that jaguar. Take Mari home early.
MÃE - Vou tentá. Que aquela ali, sabe como é!	MAMA – I'ma try... but you know how she be!

Table 12 - Text from Abaeté in Portuguese and afro-american english

5.6. Briefly collected data from the audience.

In addition to spontaneous audience feedback, we invite spectators to participate in a voluntary and anonymous survey about the play by scanning a QR Code upon exiting the venue. This process was briefly outlined at the beginning of the chapter. After several performances during our tour, 15 individuals responded to the survey. The following section presents a detailed analysis of both the qualitative and quantitative findings.

The survey, presents a multifaceted view of the audience demographic profile and their impressions of the performance, primarily focusing on questions 1-8. Quantitatively, respondents had a diverse age profile (question 2) and were predominantly of Portuguese nationality (question 3) with most identifying as "White/Portuguese origin / European" (question 4). Qualitatively, when asked if the themes of the spectacle set in Bahia could be transposed to Portugal (question 5), respondents offered mixed views, often linking it to broader

¹⁷ To maintaining some level of black accent, it was chosen the black US accent to translate the text.

socio-cultural or territorial identity issues. In question 6, responses about which ethnic group the characters belong to show a perception tied mostly to a European or Portuguese identity, though a few mentioned indigenous or Afro-descendant origins. Regarding question 7, most respondents understood the Portuguese used in the performance, exhibiting a clear comprehension of the language, while a minor portion noted difficulties. Finally, in question 8, opinions on how the performance related to their mental images of Brazil were notably positive, with respondents frequently connecting the performance to their preconceptions about the country's cultural and visual imagery.

As "Ashansu" from Obaluayê process, Abaeté was given a well-being process to me, and artists involved, at the same time that the play a proposal of dialog in Portugal, and other countries of issues discussed in dramaturgy.

The creation process involves an empowering process to artists, and the results could be open dialogs with spectators, even if it is not interactive dramaturgy.

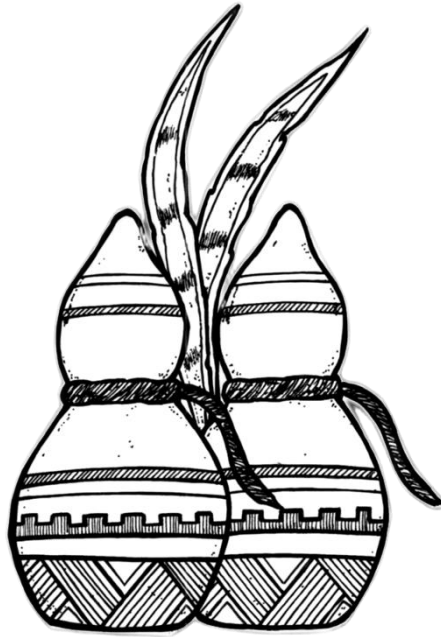
5.7. Conclusion

Abaeté appears here to show the power of the transformative method in empowering its researchers. In this chapter, as was intended and desired, I could explore my empowerment process during academic research. Abaeté is art-based research using my empowerment spores on this building.

Investigating my oppression in a creative process, Abaeté results in play that clearly speaks to my place of enunciation as a mixed-race, immigrant woman in Portugal. From my space of negotiation, discussing the legacy of slavery in Brazil, Afro-diasporic culture, and our perspective on issues such as climate risks, gentrification processes, and linguistic issues in the process of decolonization, is a way to open discussions with the inhabitants of Portugal, but also to seize the opportunity to offer different points of view; non-hegemonic, non-white. Overall, creating new spores for future better relationships, decolonized, respectful and powerful.

Analyzing the results and process, and crossing it with brief data from the audience, I could see Abaeté as a safe space to imagine new worlds, a diversity of culture, language and perspectives. Since art has its subjectivity, not doing an instrumentalization of the artwork,

showing how those small spores rise from artwork on artists and on spectators seems like another layer of academic analysis in art-based research.



6. The Ibejis will trick death¹⁸ - “Qual é meu nome, mamãe?” as a case study



PLAY Ibejis

[*Playlist Ibejis*](#)

For me to write poetry that is not political,
I must listen to the birds
And to hear the birds
The warplanes must be silent.
(Marwan Makhoul, Palestinian Poet)

¹⁸ Divine twin deities in the Yoruba religion from Nigeria, representing prosperity, joy, and duality.

This entire thesis and this chapter are motivated by something that runs through both: overcoming fear and personal empowerment. How can we conquer death? How can we find poetry when the sound of warplanes, rifles, and bombs drowns out everything else?

Throughout the research cycles of this thesis, we sought to understand the empowering potential of art, which has been demonstrated in several ways in the preceding chapters. However, there is something that needs to be said: How can artists pursue art when necropolitics rules the reality.

Therefore, knowing the empowering potential of art, the idea here is to plant seeds of hope with playfulness and poetry. I present a practical case study to explore possibilities, even though they are infinite.

Between an ancestral perspective and a case study, I will attempt to sketch possible answers through art. I draw on the work of (Noguera & Alves, 2020a) who propose a "criancista" (child-minded) worldview. This comprises "grown-up people that learn with children, give value to childhood culture, and invest in their childhood" (Noguera & Alves, 2020a, p. 535). This worldview emphasizes imagination, play, and storytelling as tools to reimagine the present and envision new futures. Here, childhood is not merely a phase of life, but a powerful epistemological force — especially through an Afro-diaspora lens, in which to see like a child is to see the world through angles yet unexplored.

While in the West, childhood is often seen as a socially constructed concept from the modern era (Agamben, 2005), (Benjamin, 2013; Gagnebin, 2005), the myth of Ibejis appeared ages ago and it was passed for countless generations. The Ibejis are divine twins who use music and playful creativity to delay — or even deceive — death, known as *Iku*. Alongside them, Exu, another foundational figure in Afro-Brazilian cosmology, also places the childlike and the play at the center of his being and power.

Exu is an Orisha who features in various stories, he is like a child because he plays with everything. His playful nature makes him capable of learning, delivering messages and walking everywhere. Exu works with Oxala, a Orisha that is the main deity in Yoruba religion, and Brazilians afro-religions like candomblé and Umbanda. Oxalá is also known as Obatalá or Olodwa and is the authority that created the Ayê (the Earth). Exu receives Oxala's offerings at

the crossroads, Exu knows all the crossroads and by crossroads we can mean streets or the circle of time, because as well as everything Exu also plays with time.

These are not merely ancient myths — they live on in practice. On September 27th, Salvador and Rio de Janeiro will host celebrations honoring the Ibejis and the Erês (sacred children). In Bahia, it is customary to prepare a ritual meal called *caruru de preceito* — made with 18 dishes — and offer it to children first. During the ritual, children eat in the center while adults sing to them. Only after the children have finished do the adults begin their meal. *The children eat first.*



Figure 51 Picture of the meal "Caruru de Preceito". Source: Folha de S. Paulo

Like *Exu*, children must be fed to be joyful, to play, to thrive. This appreciation for childhood — ritualized, celebrated, embodied — lives within me, and perhaps it explains my ongoing question: *Where is childhood at the doomsdays?*

I am not suggesting that the West does not care about children. However, I must ask: has the Western world been willing to await every child to eat before adults? And if not, which children are granted the time to eat and to play first? What color is their skin? What is their ethnicity?

These questions surfaced amid a series of events that shaped my recent experience: the rise of the homeless population in Rio de Janeiro, the increase in police killings of black children by the military police (United Nations Children's Fund (UNICEF) & Brazilian Forum of Public Safety, 2024); Thousands of Venezuelan and Syrian, and other nationalities asylum seekers in Brazil (Junger da Silva et al., 2025); the deaths of children attempting to enter as refugees in Europe (*UNHCR-UNICEF-and-IOM_Refugee-and-Migrant-Children-in-Europe-2019*, n.d.); the COVID-19 pandemic and its impact in Brazil (Fundação Maria Cecília Souto Vidigal, 2022); and current news about children's deaths in Gaza (2025); the eviction of immigrant families in Portugal; and the separation of mothers and children by the Portuguese state (Lusa, 2025) following these evictions.

So again, I ask: Which children get to eat first? What color is their skin? And as I delve into these realities, I must also ask: what role does my artistic work play in these conditions? *Is there anything art can do?* Can all the information on self-empowerment and the strength of art be useful in saving those children?

Returning to the beginning, I remember: the Ibejis can trick death. But to do so, they must not be starving. They must still have the strength to play.

So I ask: what if we used art to imagine a world where every child could eat first?

6.1. We agreed not to die: On Childhood and Circular Time

In the book "The Mythology of the Orishas" (Prandi & Rafael, 2000) one phrase stood out to me: "The Ibejis trick death." These divine twins, revered across numerous regions of Brazil (especially) Bahia and Rio de Janeiro, two parts of the country that I lived the most part of my life), embody the sacredness of childhood within Afro-Brazilian spiritual traditions. Syncretized with the Catholic saints Cosme and Damião, they are invoked in rituals and celebrations where children — known as *erês* — are placed at the center, honored and protected. But can it truly mean for children to "trick death" besides actually surviving? And why not only surviving matter in war, crisis, and collapse?

This metaphor illuminates the core of this dissertation, which explores how performances centered on childhood, or with a worldview "criancista" respond to violence, erasure, and the urgency to imagine other futures.

This is not a riddle, but a worldview. It suggests that present actions reverberate across time, that the past can be reconfigured, and that narratives are not fixed — they are negotiated, reopened, and rewritten. To ask how the Ibejis deceive death is, therefore, also to ask how time can be disrupted, how endings can be delayed, and how art and childhood can rewrite what seemed already sealed.

To ask how the Ibejis deceive death is to ask how time can be disrupted, how endings can be delayed — and, ultimately, how childhood resists erasure: physically, symbolically, politically, and culturally.

All the discussed throughout this dissertation are deeply connected to the theme of childhood. They are shows suitable for children or young people and the whole family, with young protagonists and child characters. There is a latent desire to communicate with this audience, but not only that, a genuine desire to enter into this childlike way of thinking and activate our inner children in order to create works of art.

Childhood, then, is not only a theme — it is a lens, a presence, and a point of return throughout this work.

To comprehend better the inspirational phrase in the book, my first step was texting my childhood friend Gabi Sementeira. She is the daughter of Oxum in Candomblé¹⁹; she has been sharing stories and *itan* around the world. She has also been consulting on this dissertation. I ask her, 'How do the Ibejis trick death?' and she replies:

"This is an *itan*." In the Yoruba tradition, *itan* are sacred stories — part myth, part memory, part lesson. They are not just tales; they are ways of knowing. *Itan* carries ancestral wisdom it is passed down through oral storytelling, often with rhythm, performance, and metaphor. In Candomblé, it holds the truth of the Orishas and the values of the community. In a conversation with Gabi Sementeira, a long-time friend, but also a daughter of Oxum in candomblé and a storyteller. Then, I ask her to explain the sentence "The Ibejis trick death" that I saw on the book, and she explains that, *Itan*.

It's an *itan*," Gabi said — a sacred story.

¹⁹ Being the "daughter of an Orisha" means the deity is your spiritual guardian, guiding your destiny and personal path

Back then, Death — Ikú — was everywhere. She laid traps and took people before their time. Elders, adults, children. No one was safe.

E essa frase na verdade é um itan, né? Os Ibejis enganam a morte. É um itan muito lindo (...)que eu gosto muito, muito mesmo. No momento em que a Morte (Ikú) tinha espalhado suas armadilhas por todo lugar, ela estava pegando antes do tempo velho, adulto, criança, homem e mulher, todo mundo. Todo mundo. Ikú estava pegando mesmo que não fosse a hora ainda da pessoa. E os orixás todos tentaram negociar com Ikú. Os guerreiros, todo mundo. E ninguém conseguiu. (...) Os reis organizaram um motim, organizaram tudo que era tipo de estratégia para poder parar e Ikú não parava. E então os Ibejis, filhos de Iemanjá, ganharam dela um tambor mágico que quando tocava tinha um som irresistível e eles resolveram pregar uma peça em Ikú. Então. (...) Daí os Ibejis foram pela estrada, onde sabiam que encontravam Ikú por ali. Só que enquanto um tocava o tambor, o outro se escondia atrás das árvores dos arbustos e Ikú foi ouvindo aquele som maravilhoso. Ficando encantada com aquele ritmo. E começou a dançar, a dançar. E aí, quando um gêmeo cansava, vinha o outro e trocava de lugar com ele sem parar a música e sem perceber que o gêmeo tinha trocado. Só que Ikú então não parava de dançar e tava exausta. Já tava morta de cansada e começou a implorar para que aquela música parasse, porque ela precisava descansar e ela não conseguia. E os gêmeos iam trocando e iam trocando. E ela falou eu faço qualquer coisa pra parar essa música, preciso descansar. E aí então, o gêmeo falou: “Então eu paro. Mas só se você tirar todas as suas armadilhas e não levar mais ninguém antes do tempo”. E foi assim que os Ibejis venceram a morte, enganaram a morte. E aí, essa dimensão da alegria, da brincadeira, vencendo esse maior desafio da vida que é a morte.²⁰

“The other Orishas tried to stop her, but nothing worked. Until the Ibejis — twin children of Iemanjá — stepped in.

Their mother had gifted them a magic drum. A sound drum so sweet, so irresistible, that even Death could not ignore it.

So, they walked down the road where Ikú often passed. One twin started playing. The other hid in the bushes, waiting.

Ikú heard the beat — and she danced. She danced until she was breathless.

When one twin got tired, the other took over without missing a beat. Ikú did not notice. She just kept spinning, caught in the rhythm.

Finally exhausted, she begs: “Please... stop the music.”

And the twins reply: “We will — if you take down your traps, and stop taking those who aren't ready.”

That's how the Ibejis tricked Death.

With joy, rhythm, and play — they delayed the inevitable.

Life beat death, not with force, but with laughter.”²¹

Gabi's telling of this *itan* introduces a radical idea: that joy, rhythm, and play can delay — or even defy — death. The twins' trick is not a mere tale; it becomes a metaphor for survival strategies found in art, performance, and creativity in everyday life.

The idea of children outsmarting death is not confined to myth. In Brazil's urban peripheries, it becomes a tragic daily ritual. Writer Conceição Evaristo(2024) captures this in

²⁰ Transcription of audio message

²¹ (Excerpt from the interview, transcribed and translated with the help of GPT Chat to maintain the orality and Africanness of the way of speaking.)

her story of two boys who 'agree not to die' — a pact broken by police bullets. "Death plays with bullets in the trigger fingers of boys", she writes. In the story, the two boys agree not to die. In Portuguese with "typos" that we called here as "pretoguês". They say, "*A gente combinamos de não morrer*" (We agree not to die). The difference between this story and the itan is: one boy dies. Killed by police bullets, and the deal is not fulfilled.

Baptista (2019) argues that when the Ibejis play their drums, they delay the narrative's closure - they interrupt Death's rhythm. In this act, they question how stories end, who gets to finish them, and who is left waiting in the middle. This tension mirrors the lives of those whose histories remain unfinished because of systemic violence (more discussed in the chapter "Aya—I am not afraid of you").

In line with this idea, Duarte et al. (2020), analyzing Conceição Evaristo's concept of *escrevivência* argue that writing narratives and epistemologies serves not only as an invention of things but also as an act of resistance to and reconstruction of the gap in our ancestry, as reported by the community's experiences. The idea of writing as presented by Evaristo merges with the concept of the cyclical nature of time, which is a recurring theme throughout this thesis. As well as the time being cyclical rather than linear, it is believed that it is possible to influence the past through actions in the present. For those who have experienced oppression, changing the past is a matter of survival. The saying about Exu, 'Exu killed the bird yesterday with the stone he threw today,' complements this idea with its metaphorical nature.

Nogueira & Alves (2020b) compares childhood to Exu, who is always hungry and hungers to embody things. In childhood, the hunger is for the world. The child embodies everything every time. This "hunger" should not be mistaken for lack, but understood as a manifestation of desire, an insatiable curiosity that seeks to taste, inhabit, and reconfigure the world. In this view, Exu is not merely a symbol, but a heteronym of childhood, one who plays, narrates, and devours experience with radical openness.

The idea of rewriting the past and planting seeds for the future is completely interwoven with the childhood and the tricks of Exu and the Ibejis.

Tricking death becomes a metaphor for the work of this dissertation itself: rewriting history, reshaping the present, reimagining futures — through art, through childhood, through play. The choice to focus on children and childhood is rooted in their inherent ability to teach us about time — both forward and backward. In both Benjamin (1984a) thought and Afro-

Diaspora philosophy, children emerge as beings who can transform the past, offering new ways of seeing and building the future. Their perspective invites us to begin again — to premiere new futures.

6.2. Childhood as a space for radical reinvention

This study adopts a non-idealized conception of childhood — one that recognizes both its insistent desire to take part in the world and its disruptive force. To articulate this approach, I bring together Benjamin (1984a) view of childhood as a site of critical perception with Afrocentric epistemologies that frame childhood as a locus of ancestral knowledge and radical imagination.

Rather than focusing on the innocence and *naïveté* of children, this approach highlights their ability to perceive "what grown-ups no longer see: the poor living in basements with windows facing the sidewalks, or the small figures at the bases of statues erected for victors" (Gagnebin, 2005b, p. 180). We focus on the revolutionary potential of childhood in reinventing worldviews and ways of life.

Gagnebin (2005b) also states, "Children's inability to understand certain words properly or handle certain objects properly is also a reminder that neither words nor objects exist merely to obey us." They escape us and question us, and can be more than just our docile instruments" (2005b, p. 180), highlighting how different uses of toys or objects could incite new questions and worldviews, leaving behind traditions and rigid views. Gangnebin explores how children's misunderstandings — their "errors" in naming or using objects — are not failures but provocations: reminders that objects and language resist full domestication. This suggests that childhood generates philosophical openings, especially in its ability to unsettle systems of meaning that adults accept as fixed.

Building on this, Benjamin (1984b) conception of repetition in children's play is significant. For him, repetition is not mechanical imitation, but a practice through which the child transforms traumatic or incomprehensible aspects of the world into familiar rhythms. This process reveals the child as both a historian and an inventor — one who inscribes experience into time through embodied gestures. Benjamin's idea that children "build" and "inhabit" the world through play aligns with the Afrocentric cosmologies presented here. Both perspectives emphasize play as an act of world-making.

Repetition, for Benjamin, is not mere mimicry but a gesture through which children grapple with the world, internalize its rhythms, and create familiarity. Like in the myth of the Ibejis, children do not play once — they repeat, repeat, and repeat, until the repetition itself generates something else: another meaning, another world. For (Baptista, 2019), it is precisely in repetition that children delay the world-end.

The author contributes to this view by aligning repetition in play with survival and resistance. Drawing on the myth of the Ibejis, he argues it is precisely through the insistence of play (its rhythmic and ritualistic dimension) that children resist the forces of death and erasure. The child becomes a figure who, by repeating, reweaves the world. Play here is both archive and prophecy: it transmits ancestral knowledge while also imagining what has yet to come. After all, these cosmologies offer temporalities not centered on the end, but on constant renewal.

Childhood here is not a preparatory stage but a mode of being fully capable of engaging with the world. Recalling Noguera's reflections on Exu and childhood, childhood thus becomes a "fome de mundo" (world-hungry): a force that does not accumulate but transforms through play, narrative, and experimentation. Exu's appetite mirrors the child's expansive capacity to engage with reality, where eating becomes a metaphor for incorporating, metabolizing, and reinventing life itself.

Rufino views play as a decolonial and insurgent force; a way of resisting the adult-centric, capitalist logic that reduces existence to production and consumption. In his view, to play is to recompose the body, community, and memory against colonial fragmentation. This playful reconfiguration, which he calls *vadição*, destabilizes hierarchies of knowledge and power by asserting joy, movement, and invention as core epistemologies. In this sense, play becomes a serious act of critique. The body that plays is not merely engaged in leisure, but in a form of "gramática insurgente" — an embodied grammar of rebellion that crosses time and remaps subjectivities. The *roda* (circle) of play, dance, or *capoeira* is more than a metaphor; it enacts a temporal and spatial rupture that allows new ways of being together. This resonates deeply with Benjamin's suggestion that children's play suspends linear time, making space for other rhythms and histories.

For Benjamin, the ability to transform toys through active play rather than passively receiving them is a revolutionary aspect of childhood. Rufino (2021) presents play and

childhood as a decolonizing practice by rejecting adulthood, which is expected not to play, but to "produce, consume, discard, and aim for profit" (Rufino, 2021, p. 70) In this sense, playfulness allows one to rehearse other bodies. It becomes a path toward liberation and the emergence of decolonized bodies — and play holds revolutionary potential.

Narrative and play, then, are not pedagogical tools but vital forces. They are how childhood resists the fixed rhythms and codes of adult life. They are, as Noguera and Alves argue, acts of ethical and political restoration — responses to the "vampiric adulthood" that attempts to preserve the self by draining the vitality of others and suppressing imagination. In this light, childhood is not a preparatory phase, but a permanent possibility: one that insists on joy, curiosity, and transformation.

These views of childhood as desire, disobedience, and invention are not abstractions. They echo through the stories, movements, and silences of the works explored ahead.

6.3. Theater for the young and children, beyond the educational objectives

The notion of theater for children must be addressed beyond childhood conceptions. Benjamin was a visionary who questioned childhood and experience. In his 1928 essay, "Program for a Proletarian Children's Theater," Walter Benjamin outlines his vision for theater created with and for working-class children, rather than a moralizing spectacle imposed upon them. After observing Soviet children's theater with Asja Lācis, Benjamin wrote the text, which rejects bourgeois models that treat children as passive spectators. Benjamin instead proposes a collective, participatory process in which children actively create, improvise, and experiment using simple materials from their everyday lives. Benjamin emphasizes play, spontaneity, and collaboration over polished results, aiming to foster autonomy, class consciousness, and a sense of community through theater.

By raising these issues, Benjamin's brief text predicts current debates on children's participation in the arts, positioning young people as active participants in cultural life.

Benjamin argues that children and youth are producers of culture, and that when art is organized as a collective game and shared technique, it educates politically without moralism.

This statement shows harmony with the ideas of Paulo Freire in *Pedagogy of the Oppressed*, Augusto Boal in *Theater of the Oppressed*, and Luiz Rufino in *Guerrilla of Play*, complementing these thoughts with the concept of decolonial forces. Each of these thinkers rejects the notion of children, students or audiences as passive recipients of knowledge. Instead, they view them as co-creators of life, art, and knowledge. Benjamin advocates collective creation and improvisation, emphasizing the journey over the final spectacle. Freire encourages the oppressed to express themselves through dialogue and critical reflection, and Boal empowers the audience to become active participants in the performance. Rufino reminds us that *brincar* (to play) is a form of ancestral, bodily wisdom and a means of resisting the adult-centered, colonial world that seeks to strip life of imagination, community and joy.

These visions converge in a pedagogy in which bodies and voices move in circles rather than straight lines, and in which the classroom, the street and the stage become spaces for collectively inventing the future. When I visualize Benjamin's participatory art, Freire's dialogical praxis and Boal's theatre of intervention through a decolonizing lens, Rufino's cosmology of play weaves together to form a fabric that is both playful and radical. In my perspective, these concepts embody an aesthetic that dismantles oppressive structures and re-establishes cyclical time, thus permitting the repeated exploration of beginnings and the emergence of fresh perspectives.

This takes the form of gathering in a circle to breathe, sing and move together. Games that disarm the body and laughter that softens fear are what it looks like. It involves building scenes from lived realities and then stepping into them to test different endings. It involves children and adults crafting stories with their hands and memories, drawing on ancestral rhythms and everyday struggles. This is how theatre for children and young people could be viewed: to build autonomy and liberty through theatre and play. Children and young people are actors in this transformation.

While those authors remind us that children are active creators of culture and meaning, Zurawski (2017) brings this into focus within the field of children's theater: The author states that childhood is not a lesser version of adulthood, but a world with its own rhythms, sensibilities, and ways of knowing. Author suggests that any work of art, even one with a moralistic tone, can be shared with children if it honors this difference: if it recognizes play as the child's true language, gives music and images the space to speak, and trusts action and sensation as much as words. She calls for theater that does not "shrink" itself to what is

presumed childlike, but that dares to expand the child's experience with new words and ideas, carefully rooted in context.

This vision asks us to look beyond simplification and to treat the stage as a place where children can encounter complexity and beauty, just as adults do; yet in ways that resonate with their own ways of building meaning. To think this way is to remember that children, like art itself, are always more than what we expect of them.

This vision is also reflected in the way contemporary creators have been reimagining theatre for children and young people. De Carvalho et al. (2022) and Vellinho (2016) emphasize, the increasing prevalence of 'taboo' themes in productions for young audiences shows a more profound engagement with the present moment, as well as a rejection of the notion that children and adolescents should be underestimated.

Various artists now view children not as fragile nor dependent, but as part of the complex adult world. Instead, they recognize them as active, inquisitive and autonomous individuals who can engage with the multiple and challenging realities that shape their lives.

As Vellinho (2016) notes, this shift is a deliberate move away from didactic or moralistic theatre, as well as from works that treat young audiences as passive consumers of mere entertainment. Instead, these productions embrace hard questions such as tolerance and intolerance, bullying, racism, gender identity and the various ways of encountering difference, inviting children into conversations that are ethical, poetic and deeply human. In doing so, the stage becomes more than a distraction; it becomes a space where young people can see their world reflected, challenged and reimagined through art that trusts their intelligence and capacity to feel.

Together, these perspectives encourage us to envision children's theater as a space where play, complexity, and challenging questions converge. It is a space that respects children's unique perspectives while trusting their capacity to engage with the world as it is. With this worldview, we now turn to a theatrical work that serves as a case study in this chapter. "Qual é Meu Nome, Mamãe?" (What's my name, Mom?).

6.4. Hoped-for throughout child's eyes in "What is my name, Mom?"—a case study

6.4.1. The play

"Qual é meu nome, mamãe?" (What's my name, mom?) is a theater play, presented by theater company (Cegonha Bando de Criação) and premiered in Rio de Janeiro in 2019, the 40-minute puppet play tells the story of a young boy and his mother as they leave their home and search for safety. Conceived for both children and adults, the artwork emerged from the conviction that difficult themes such as war, refuge, and migration can (and must) be addressed to children through poetic images and respect for their ways of seeing the world as already discussed before.

Simple yet deeply evocative, the staging involves four actors manipulating puppets made of foam and fabric (70 cm to 1 meter in height) while three movable panels are rearranged to receive video mapping projections animations created by Nicole Schlegel, transforming the space into constantly shifting different landscapes (Figure 52). The boy puppet is often animated by three performers; at other times, one actor attaches the puppet's feet to their own, giving other possibilities to the scenes. The mother is built as a hybrid figure, with her puppet torso and dress seamlessly integrated into the performer's costume, so that the actor's feet become the mother's feet. (Figure 53Figure 54).



Figure 52 - Pictures of the play "What's my name, Mom?". Showing the different set-ups. © Kamyla Abreu



Figure 53 - Picture of Audiovisual version "What's my name, mom?". Showing puppets Mom and Boy. ©Renato Marques



Figure 54 - Making of pictures of creation process of "What's my name, mom?" . © Zhai Sichen

Songs originally composed for the play, permeate the narrative and anchor key moments.

Since its premiere, the play has been presented in Rio de Janeiro and its metropolitan area, was scheduled for a national tour in 2020 (canceled because of the pandemic), and reemerged as an audiovisual work on *World Refugee Day 2021* – online event organized by the UNHCR. It was later presented online at Fenatib (Joinville, Santa Catarina), Fenatifs (Feira de Santana, Bahia), and Sesc Ceará (Fortaleza, Ceará). In October 2025, "*What's my name, mom?*" returns to the online stage at the Puppet Power Conference in Canada. An updated *in-person* version is scheduled for May 2026 in Portugal (Porto and Lisbon). This new version has the goal of considering creative laboratories with immigrant groups in Portugal, bringing local immigration issues to the forefront.

The play also entered the catalog of the Brazilian Quadrennial Prague Curators (2019-2022), making it one of the important plays of the period in Brazil. Evoking the subject of the curators as "we believe in the crossroads," (Encruzilhadas: acreditamos nas esquinas) it is a greeting to Exu (lord of the street corners) and the ability to create in dark times, resistance to hard moments (as adinkra AYA) such as this quadrennial experienced in Brazil.

The Brazilian curatorial team for PQ'23 came together during a time of political and cultural crisis in Brazil, marked by the dismantling of cultural policies and the impact of the COVID-19 pandemic. Supported mainly by the Aldir Blanc Emergency Law, they mapped performances from across the country (2019–2022) and highlighted sound as a central language—seeing listening as a powerful and often neglected act. The result was a collective creation of immersive sound installations by artists from all Brazilian states, presented as *ENCRUZILHADAS: We Believe in the Crossroads*, a response to political violence and a celebration of Brazil's cultural diversity and resistance. (see Figure 55)

Carlos Bolsonaro and Deputy Rodrigo Amorim were tagged on a comment, and responded promising to fight until the play was prohibited or censored, starting an online campaign for that prohibition. Part of these posts can be seen here (Figure 56) These two deputies started a digital witch hunt trying to suspend the show and persecute the artists. The situation terrified us because it was very close to us, and it was only Bolsonaro's first year as president. This made us think about how to develop our show without making obvious criticisms, preventing it from being suspended or persecuted.

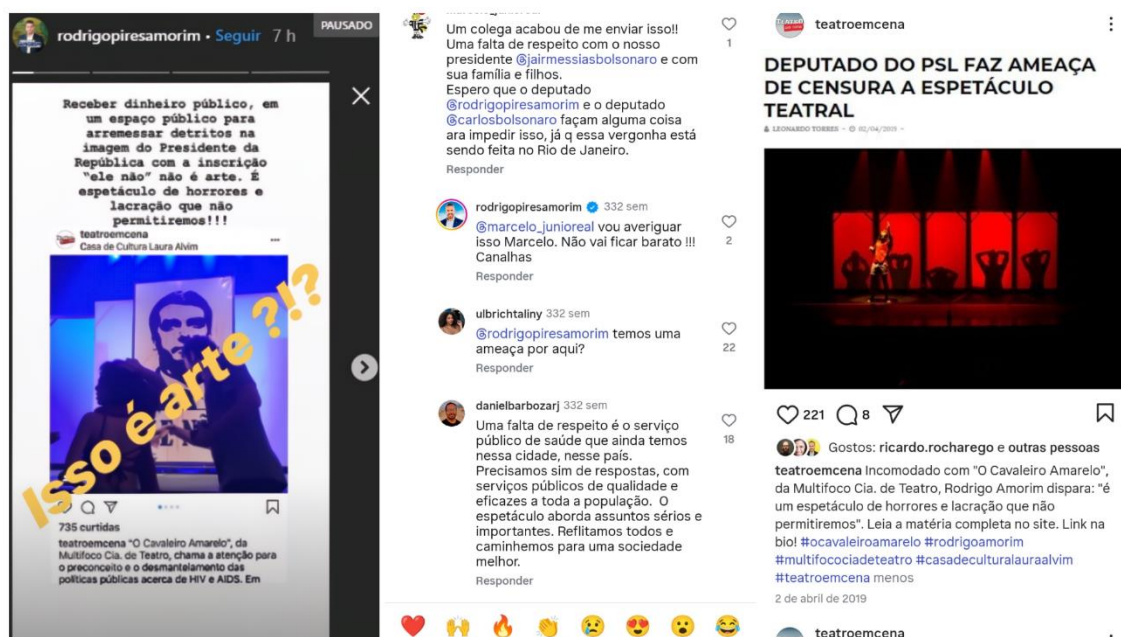


Figure 56 - Prints from Instagram (personal Archive)

- (b) During the rehearsal period, the governor of Rio de Janeiro, Wilson Witzel, hopped in a helicopter with the police to see them shooting people in favela in Rio.

The fact upset us, and because of that, we staged helicopter shooting on the first scene of our show. As heavy as it may sound, that was the reality even children were experiencing in Rio de Janeiro.

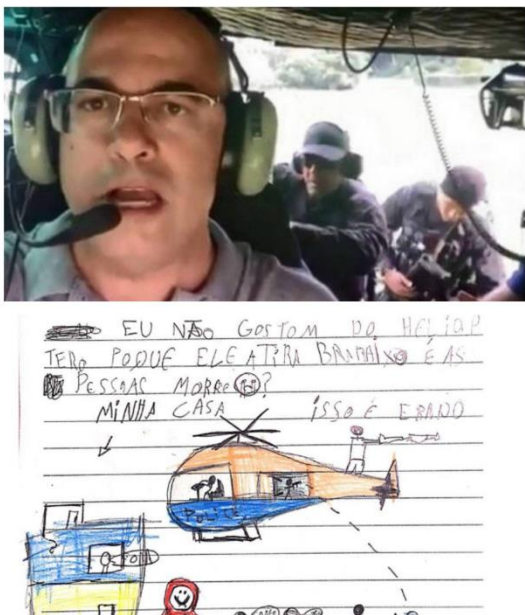


Figure 57 - Collage of pictures from BBC Brasil and G1

(c) Increasing rates of refugees in Brazil–Syrians and Venezuelans majority - and in Europe (by boats or walking) put the issue on the discussion table.

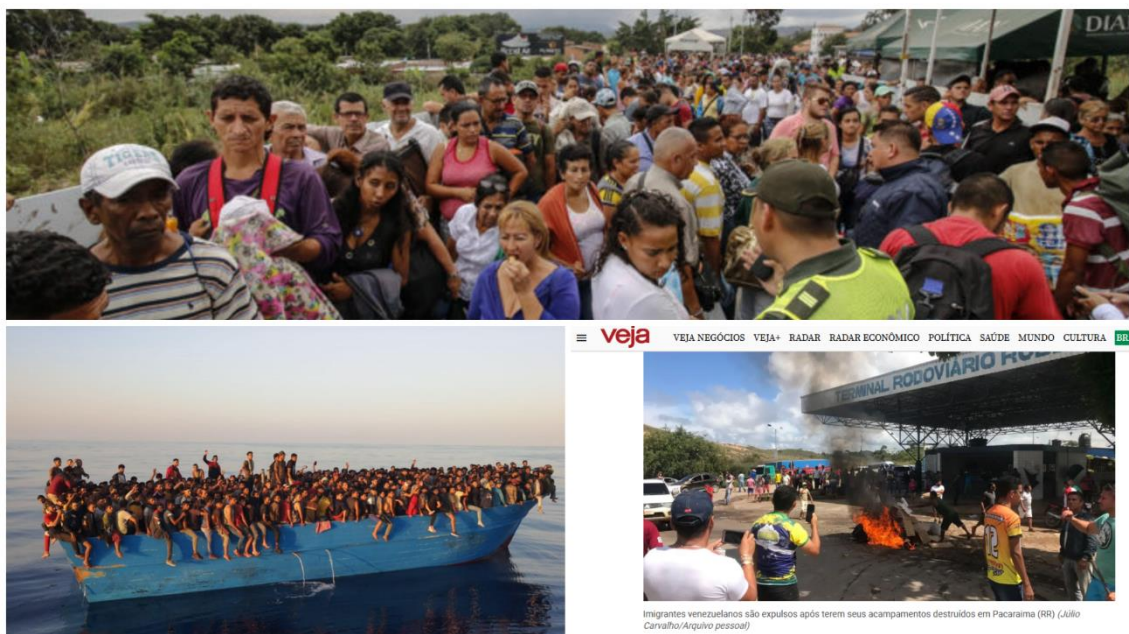


Figure 58 - Collage with pictures from Jounals Veja, G1 and Folha de S. Paulo

6.4.3. Artistic contexts–inspirational images

Our first inspiration comes from the book "My name is not refugee" by Kate Milner, a book of few lines but many images that brings up the children's point of view in a traumatic and painful process like becoming a refugee. Here are some of the illustrations that inspired us.

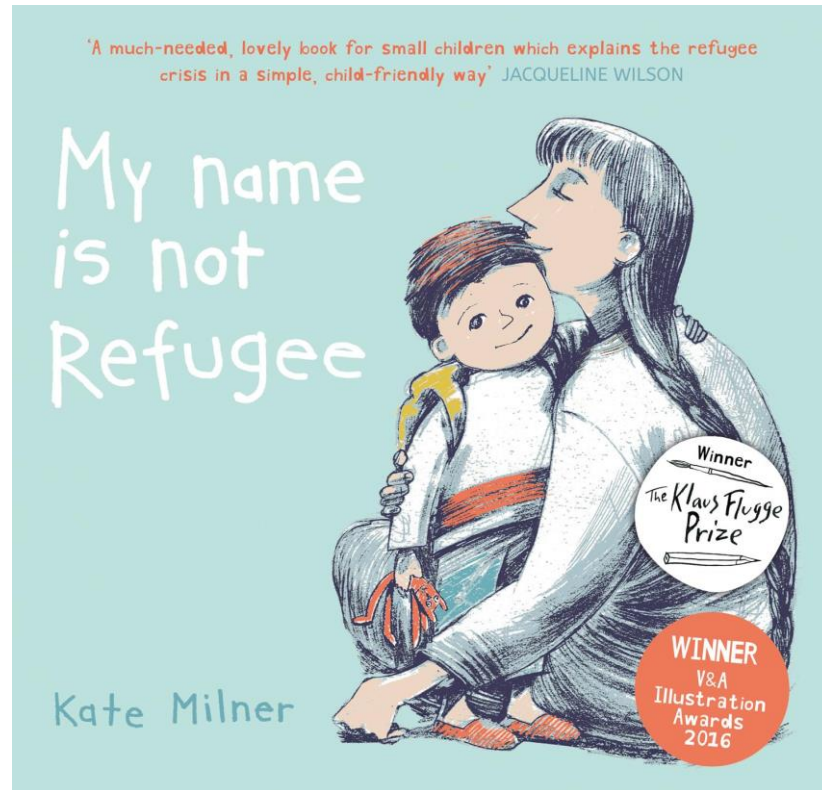


Figure 59 - Printscreen from the book cover - from Amazon.es

Our second and very important inspiration was the photos from Exodus (Salgado, 2016) and from the book "Retratos de crianças do Exodus" (Salgado, S & Salgado, L, 2000), book covers on Fig142. The children's eyes, their mature and suffered bodies, although still with an innocent look, caught our attention to this composition and inspired the creation of the puppets and also the interpretation of the actors.

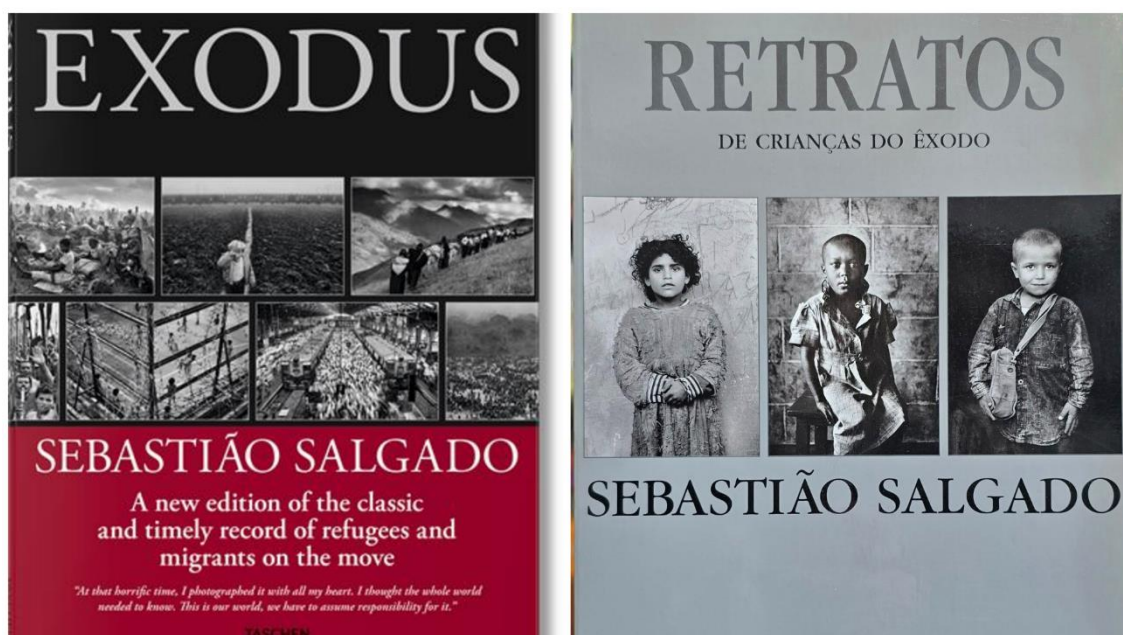


Figure 60 - Book Cover "exodus" (left) and Book cover "The Children. Refugee and migrants.

In addition, we interviewed people in refugee situations, groups, families and some artists too, and talking to them inspired us directly to develop some scenes and situations.

After all this immersion, we started the artistic process. Drawing on many sources, it was the idea of image-theater and the plays of Augusto Boal, particularly his Theater of the Oppressed, that enabled us to shape everything into a performance.

6.4.4. Theater of the Oppressed games and the process used to make them.

The creation of the play began as a collective theatre game, emerging from initial sessions of *Theater of the Oppressed* and *Theater of the Sensitive* exercises. These early activities—designed to stimulate awareness and image-making, led directly to the group's main creative method: each actor bringing a song they felt could connect to the journey of the two central characters, a young mother and her little boy. For each song, the ensemble created a drawing and a corresponding body sequence, which were then developed into improvisational practices.

From these improvisational exercises, the dramaturgy took shape. Scene 1, for example, where the boy plays hopscotch while a helicopter passes overhead, firing shots, was directly inspired by the real event in which the Governor flew in a police helicopter to witness and

endorse shooting from above. The team was focused on creating visually the motivation to go out of home, and something close to our reality, could be an intense way of making it.



Video 4 - Trailer "Qual é meu nome, mamãe?" showing the scene with Helicopter

This juxtaposition of childhood plays and systemic violence established an early thematic tension that runs throughout the performance.

Another key sequence to emerge from this process was the *Walking Scene*, rooted in the countless real-life images of people walking for kilometers, both in Europe and at the Brazil-Venezuela border. In our staging, the mother and child are fully integrated into the chorus, moving as part of the larger migration flow. Yet, the boy's childlike impulses, looking at the landscape, collecting a stone from the ground, constantly interrupting rhythm. is mother must keep him close, urging him to continue walking, walking, without losing the group. This interplay between the boy's individual impulses and the collective march became one of the play's central visual metaphors, aiming to humanize the individuals within the group and evoke empathy in the audience.



Figure 61 - Collage with "The Walking scene"

The *Sea Scene* was conceived later as an artistic way to evoke the dangers and mishaps of crossing the sea. Here, the boy's character performs an aerialist circus routine, transforming trauma into a poetic image. While in Brazil it is rare for refugees to arrive by sea, this choice served as a tribute to those who have perished in the Mediterranean and other European waters.



Figure 62 - Printscreen of the "sea scene"

The dramaturgy ultimately became a series of image-worlds forming a loose arc of departure, hardship, and arrival. We avoided excessive or literal narrative links between these moments, allowing each scene to stand as its own poetic reality. From the outset, we kept the puppeteers visible on stage so that they could merge with the puppets, expanding the sense of a collective chorus in motion.

In designing the characters' physical appearance, we consciously worked to avoid stereotypes. No white puppets were made to counter structural racism embedded in our cultural imagination. We also opted for visual and sonic neutrality—eschewing specifically Arab or Islamic sounds and costumes that had become clichés in Brazilian representations of refugees. The characters remain unnamed and unlinked to anyone culture or nationality, reinforcing the understanding that forced displacement is a global phenomenon.

The performance contains no direct onstage dialog. Instead, its meaning is carried through a layered sound design: gunfire, footsteps, trucks passing on asphalt, helicopters, sea, and rain. This is combined with voice-over texts—spoken as if by the boy, now older, narrating his version of the story. The poems are reproduced here, Portuguese on the left and English translation on the right

DO DIA QUE VAI (Portuguese)

A verdade é que a partida
e a vinda tanto chegam quanto vão,
sem despedir, traz a dor do corredor
lá da saída fecha a porta do saguão.
A pior saudade é aquela da lua mais bela.
Veja que noite, que se cobrirá de escuridão
lembrando o que não foi.
O que poderia ter vindo e ficou
Uma lembrança imaginada
Que disfarça a tempestade
Que rega a saudade
Que repete e reparte
Do dia que vai
do dia que chega
e do dia que fica.

FROM THE DAY THAT LEAVES (English)

The truth is that departure
and arrival both come and go,
without farewell, they bring the hallway's ache
where at the exit the lobby door shuts.
The worst longing is for the most beautiful moon.
Look at this night, soon to be covered in darkness
remembering what never was.
What could have come but stayed behind
An imagined memory
That disguises the storm
That waters the longing
That repeats and divides
From the day that leaves
the day that arrives
and the day that stays.

MEU NOME É MEU CORAÇÃO**(Portuguese)**

Meu nome é meu coração
Pulsando na escuridão
Meu olhar é saudade
E ainda correndo entre as ruínas
sou lembrança de outra cidade
Lembrança que brilha
Ao ouvir meu nome
Aquecendo um coração
Que se sente único
Como a lua cheia
Que me destaca da multidão.
Que me destaca da multidão

MY NAME IS MY HEART (English)

My name is my heart
Beating in the darkness
My gaze is longing
And still running among the ruins
I am the memory of another city
A memory that shines
Upon hearing my name
Warming a heart
That feels unique
Like the full moon
That sets me apart from the crowd.
That sets me apart from the crowd.

(Oliveira, Vida; Viana, Ricco)

Table 13 - Lyrics from *qual é meu nome, mamãe?* In Portuguese and English

We also developed short, accessible sentences to address children in the audience, spoken in off-voice as if from the boy's future self, such as

- "That day, my mother said, we have to leave the city—it's no longer safe to live here."
- "I can only take what I can carry. What would you choose?"
- "A visa is a paper the guard looks at. Once he looks, it's 'seen,' and then you can enter the country."
- "If you have to choose between the toy and the play, choose the play. The toy may not fit in the backpack, but play can transform anything into a toy."
- "They will call you a refugee, but remember—this is not your name."

These narratives were shaped not only by artistic research but also by direct interviews with refugee families living in Brazil, including a Colombian family and two Syrian brothers who had arrived as teenagers. The scene of the mother playing guitar in a public square, only to be driven away by xenophobic comments, is directly based on the Colombian family's testimony. Alongside these testimonies, the creative team drew inspiration from Kate Milner's

"My Name is Not Refugee" and Sebastião Salgado's photographic series "Exodus" and "The Children: Refugees and Migrants".

The image-creation process was deeply informed by Augusto Boal's Image Theater method, combined with our own adaptations from earlier sessions of Theater of the Oppressed and *Theater of the Sensitive*. These techniques allowed the actors—none of whom were refugees—to approach the subject with empathy, connecting the global experience of forced displacement with their own lived experiences of systemic violence in Rio de Janeiro.

In that play, digital animation became a central poetic device, already present in the original staging and expanded in the audiovisual version. It offered a way to approach the trauma of displacement while foregrounding our main message: the resilience of childhood and the transformative power of play. Following Paulo Freire's notion of "hope while acting" (Freire, 2003), the play affirms the possibility of empathy, respect, and openness toward immigrants, refugees, and all those perceived as "other." Even amid fear and hardship, children can see poetry and playfulness everywhere—a hopeful horizon we sought to make visible on stage.



Video 5 - Video with the scene about the play

Our "hope" here also reflects (Benjamin, 1984b) understanding that children can see beyond what adults see and (Rufino, 2021) belief in the revolutionary power of *brincar* (to

play). In the absence of drums or the right tools and toys in this universe, the ability and the right to play would be the most accessible way to cheat death, pain and violence - and that is why we want to remember it well. This could be achieved by playing the drums until exhaustion or by turning Iku into a toy. The form does not matter more than protecting play and children does. It is they who seem able to cheat death and negotiate a future for themselves. Let the drums roll; let them play.



7. Epilogue- Let's greet "Iroko"



PLAY Let's Greet Iroko

[PLAY Let's Greet Iroko](#)

Compositor de destinos
Tambor de todos os ritmos
Tempo, tempo, tempo, tempo
(Veloso, 1979)

*"Composer of destinies
Drum of all rhythms
Time, time, time, time"*²²

²² [Free Translation]

7.1. Time's Cycles

Cyclically, I arrive at the end of this work, knowing that endings are never linear. I write from a temporal understanding that is not Western or chronological, but ancestral and circular—an understanding shared by many Indigenous and African cosmologies. For the Yoruba, time is a tree, and its name is Iroko. Iroko holds memory and futurity together: it carries the stories that shaped us and the seeds of what has yet to come. Returning to Iroko here is not merely symbolic. How I wrote this thesis revealed the layers of ancestry, experience, and return.

Within this cyclical temporality, research unfolds at the pace it needs. My interest in audience agency and interactivity began in 2008, during a project on dramaturgy for video games. That was the first cycle. I am concluding this after seventeen years, not because I have found all the answers, but because we can now explore new ones. What ends here is also a beginning.

The political landscape in which this research takes place—marked by biopolitics, necropolitics, and unequal access to life itself—makes these reflections urgent. I wanted to understand what happens in spectatorship when artworks are digitally mediated and when digital tools function as aesthetic languages rather than simply being devices, thereby avoiding the idea of technology often being an instrument of control. What I found is not a single answer but a constellation: technology can replicate systems of domination, yet it can also open fresh paths for participation, empathy, and collective empowerment.

To speak of the political dimensions of art requires attention to creation and reception. Artistic processes—whether enacted by trained artists or by participants in forum theater—constitute political acts. Viewers also participate in this process when they incorporate the artwork and provoke reflection within themselves. Prousalí (2018) calls this "acting without acting," resonating with Rancière (2009) defense of the emancipated spectator and echoed in neuroscientific explanations of embodiment. Empowerment, therefore, is not observed; it is enacted in the encounter.

It is not enough to measure audience engagement or to introduce interactivity for its own sake. Empowerment requires a safe space in which art becomes a catalyst against oppression and a site where action and imagination coexist (Chagas et al., 2025; Conceição, 2016). For this to happen, the artist must understand their own speaking place—who they are,

where they stand, and how their positionality shapes the invitation they extend. The artist is not a master instructing the audience but an inviter, sharing means of creation and proposing ethical meetings.

7.2. Conclusions from chapters

The works examined throughout this thesis—*Makupuni*, *Aya*, *Abaeté*, and *Qual é meu nome, mamãe?*, demonstrate that digital and interactive strategies are never neutral. Their effect arises not from technology itself but from the ethical, political, and aesthetic decisions that guide its use. Empowerment, while contextual and partly measurable, is not generated automatically by participation or digital mediation; it emerges from the quality of the creative process, from how we listen, collaborate, and construct meaning together.

Before turning to the final reflections, I now outline the specific conclusions reached in each chapter of this dissertation.

7.2.1. Sankofa — Makupuni: Looking Back as the First Step

Makupuni provided the foundational questions that guided the entire research: how spectators decided; if/how dramaturgy, technology, and context shape agency; and how participation invites ethical reflection. The responses, especially from children, revealed deep engagement. Yet this early work also showed the need for more systematic tools to examine empowerment, leading to methodological developments in subsequent chapters.

7.2.2. Ananse Ntotan — Audience Methods

This chapter shows that empowerment can be rigorously investigated through a combination of artistic, qualitative, and neuroscientific methods, provided that spectators' subjectivity is preserved. By interweaving Theater of the Oppressed, empowerment theory, and physiological measurement, the study shows that spectatorship can be analyzed without reducing it to passive interpretation or neoliberal agency. The workshop-focus group offered accessible tools for artists to start to examine agency and prepared the ground for the main experiment.

7.2.3. AYA — The Workshop "I Am Not Afraid of You"

The AYA workshop revealed concrete manifestations of empowerment during artistic practice. Surveys, physiological data, and observational notes showed shifts in confidence, self-perception, and collective engagement. Theater of the Oppressed techniques proved effective in creating safe and participatory environments where agency could be negotiated. While not universally applicable, these discoveries provide the dissertation's most definitive evidence-based contribution.

7.2.4. Ashansu — The Play *Abaeté*

Abaeté allowed the examination of empowerment not only in spectators but also in the artist's creative process. Its Afrodiasporic, Afrofuturist, and autobiographical elements showed how creation becomes a space for self-empowerment, especially for racialized and diasporic subjects facing colonial legacies in language, geography, and representation. Here, power comes from honoring the past, creative freedom, and retelling stories.

7.2.5. The Ibejis Will Trick Death — *Qual é meu nome, mamãe?*

This chapter shows how theater for young audiences can generate powerful forms of empowerment by transforming vulnerability into imagination, play, and resilience. Children responded intensely to poetic language, puppetry, and symbolic imagery when engaging with themes of migration, loss, and survival. The performance shows how art for children can resist stereotypes and foster ethical and creative processing of difficult realities.

7.3. Finding Spores Throughout Time

Across all chapters, empowerment appears to be relational, emerging not within individuals but in the meeting between artist and spectator. It is shaped by ancestry, technology, postcolonial identity, and personal histories. Artistic practices act as laboratories where decisions, emotions, embodiment, and collaboration shape agency. Mixed methods reveal multiple layers of spectatorship - cognitive, social, and embodied. Afro-diasporic epistemologies, such as Sankofa, Aya, Ubuntu, and Ibejis, provide frameworks for understanding empowerment as ancestral, communal, cyclical, and future-oriented.

Yet empowerment is never guaranteed. It must be co-created. The role of the artist is not to instruct but to invite; not to impose meaning but to open spaces where agency can unfold ethically. This dual empowerment—of artist and spectator—remains unstable, emerging in the unpredictable space between gesture and reception. to explore empowerment and discover new forests in the future.

Within a world characterized by war, displacement, systemic racism, and increasing authoritarianism, these artistic practices provide opportunities to "deceive death," similar to the Ibejis' spirited opposition. Through community, imagination, and technological poetics, the works studied here reconfigure time and resist necropolitical forces. The ethical use of digital technology becomes not only an aesthetic choice but an ontological and political act—one that asks not merely how we create, but for whom, and with what consequences.

I know this research does not change the world. Children still die. Wars continue. Dictatorships emerge. However, perhaps this thesis carries a little act of *esperançar*, in Paulo Freire(Freire, 2003) sense—a gesture of hope grounded in action. Through art, I have learned not to lose hope. This work, therefore, is not an ending but a beginning: an invitation to continue creating, questioning, imagining. To greet Iroko is to remember that time, like art, keeps returning, and that each return offers the chance to plant again.

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APPENDIX

APPENDIX A Show's technical catalogues

- Version 1 (2017-2018)

Staging and text: Vida Oliveira

Puppet coordination: Miguel Albi Araujo

Assistant direction: Pedro Maia

Cast: Miguel Albi Araujo and Luiza Sussekind

Soundtrack: Ricco Viana

Set design: Paulo Denizot and Janaína Wedling

Lightning design: Paulo Denizot

Digital animation and video-mapping projections: Rico Vilarouca and Renato Vilarouca

Costume design: Raquel Theo

Puppet design and construction: Márcio Newlands

Movement direction: Jacyan Castilho

Interactivity system: Ambos &&

Audiovisual recording: Zhai Sichen

Production coordination: Vida Oliveira

Production: André Roman

Production assistants: Miguel Albi Araujo and Tamiris Tavares

Press release: Olga Bon

Visual design: Guilherme Borges

Social media: Kamyla Abreu

Produced by: Cegonha – Bando de Criação

- Version 2 (2023)

Staging, text, and mapping/interactivity design: Vida Oliveira

Cast, puppeteer, and puppet manipulation: Miguel Albi Araujo

Original soundtrack: Ricco Viana

Set design and digital animation: Renato Marques

Lighting design: Renato Machado

Costume design: Raquel Theo

Original puppet design: Márcio Newlands

Production and press release: Helena Matos

Produced by: Cegonha – Bando de Criação

ABAETÉ (2023)

Staging, text, and mapping design: Vida Oliveira

Play-writing: Vida Oliveira and Miguel Albi Araujo

Puppet and objects designs: Miguel Albi Araujo, Vida Oliveira and Helena Matos

Cast: Vida Oliveira e Miguel Albi Araujo

Set design and digital animations: Renato Marques

Soundtrack: Luca Argel

Costume design: Vida Oliveira and Andrea Sarmento

Production and press release: Cegonha – Bando de Criação | Vida Oliveira e Helena Matos

Produced by: Cegonha – Bando de Criação

QUAL É MEU NOME, MAMÃE? (2019)

Staging and text: Vida Oliveira

Assistant direction: Miguel Albi Araujo

Cast: Brisa Rodrigues, Luiza Süssekind, Miguel Albi Araujo and Pedro Ivo Maia.

Puppet Design: Miguel Albi Araujo and Vida Oliveira

Puppet development (Mother, Boy, and Friend): Ademir de Souza

Additional object and puppet design and development: Luiza Süssekind, Miguel Albi Araujo and Vida Oliveira.

Set design: Miguel Albi Araujo and Vida Oliveira

Costume design: Luiza Süssekind e Vida Oliveira

Set and costume supervisor: Danielle Geammal

Lighting designer: Ricardo Rocha

Digital animations and mapping design: Nicole Schlegel

Original soundtrack: Ricco Viana

Sound research: Pedro Ivo Maia

Stage technician: Renato Marques

Production: Cegonha – Bando de Criação | Vida Oliveira and Miguel Albi Araujo

Produced by: Cegonha – Bando de Criação

APPENDIX B

Surveys questions

Survey - MAKUPUNI – Version 2 (2023)

The MAKUPUNI show is part of a doctoral research project on the reception of interactive works. That is why your contribution will be very important!

Note: This form was created to evaluate the audience's reception of the Makupuni show. It is completely anonymous and will be used for academic purposes only, in compliance with current data protection laws.

- a) What is your age?
- b) What is your ZIP code?
- c) When it came to vote, did you have any doubts about how to vote?
 - Yes
 - No
 - In few moments
- d) Did you feel impelled or interested in voting and participate?
 - Yes
 - No
 - Just in few moments
- e) After the show, do you still remember the issues raised during the voting?
 - Yes
 - No
 - I recall a few questions
- f) Did the show raise any reflections for your daily life or personal life? If so, what are they?
- g) Is there anything that has not been asked that you would like to mention here?
- h) Leave your email address here if you would like to receive information about this show and other performances by our group.

Survey - ABAETÉ (2023)

Anonymous form for studies on the impact of the show "Abaeté" on the audience, for exclusively academic research purposes by researchers Vida Oliveira and Miguel Araujo. **There is no right answer. Feel free to answer honestly whatever comes to your mind.**

Age

Nationality

Your Ethnical majority group

- White: Portuguese/European origin
- Black: Portuguese/African descent/African origin
- Asian: Asian origin; Portuguese/Asian origin
- Indigenous Americans
- Mixed race (two or more ethnic origins)

The show takes place in Bahia. Do you think the issues addressed in it could also happen in Portugal? If so, why?

Which ethnic group do you think the characters belong to? (answer whatever comes to your mind)

- White: Portuguese/European origin
- Black: Portuguese/African descent/African origin
- Asian: Asian origin; Portuguese/Asian origin
- Indigenous Americans
- Mixed race (two or more ethnic origins)

Did you understand the Portuguese spoken in the play?

- Yes
- No
- I had difficulties in some parts

How does the show relate to the images you had in mind about Brazil?

What impact do you think robotic puppets had on the narrative and staging?

- Negative
- Slightly negative
- Neutral
- Slightly positive
- Positive

What kind of emotion did the robotic puppets evoke in you?

- Surprise
- Enchantment

- Curiosity
- Discomfort
- Irritation
- Other

How could the robotic puppets be improved for future performances of the show?

Is there anything that was not asked but you would like to say about the show?

AYA (2024) - Surveys

SURVEY 1 - Socio Demographic survey:

Workshop number ID:

Marriage?

☐ yes ☐ no

Do you have kids?

☐ Yes ☐ No

Nationality:

Ethnic Group:

Which of the following ethnic groups do you consider yourself to belong to in a Marjoritarian way?

You can choose more than one option if you think you are mixed race.

- White/White Portuguese/European origin
- Black/Black Portuguese/Afro-descendant/African origin
- Asian/Asian origin Portuguese/Asian origin
- Gypsy/Gypsy Portuguese/Roma
- American Indigenous origins
- Other

SURVEY 2 - General survey to identify oppressive situations that need to be addressed:
This survey is distributed before the workshop, in the end of it and one month later, join the post-scene survey.

Adapted from:

Richardson, R.A. Measuring Women's Empowerment: A Critical Review of Current Practices and Recommendations for Researchers. *Soc Indic Res* 137, 539–557 (2018).
<https://doi.org/10.1007/s11205-017-1622-4>

Spreitzer, Gretchen M. (1995). Psychological empowerment in the workplace: Dimensions, measurement, and validation. *Academy of Management Journal*, 38(5): 1442-1465.

Spreitzer, Gretchen M. (1996). Social structural characteristics of psychological empowerment. *Academy of Management Journal*, 39(2): 483-504.

For each question, answer whether you feel it is completely true or completely false on the scale. Please, answer with sincerity.

Instructions: Using the scale provided, please indicate how strongly you agree, disagree, or strongly disagree with the statement based on your own life experience.

1 ----- 2 ----- 3 ----- 4 ----- 5
Strongly disagree **partly agree** **completely agree**

_____ I am a woman who is confident that my job is suitable for women.

_____ If I were a man, it would be enough to earn more money in my job.

_____ My family has invested in my economic independence as much as in my brother's career.

_____ I am confident that I can choose when to have children.

_____ I had access to sexual information and contraceptives when I was a teenager.

_____ Through the government or my resources, I have easier access to contraceptives.

_____ In my house, men and women share equally in cleaning and tidying the house.

_____ I am not the only one responsible for making the supermarket list at home.

_____ I am not the only one responsible for washing clothes.

_____ I am the main responsible to maintain my home financially.

_____ I do not need to ask anyone's permission to go out.

_____ When I was a child/teenager, my brothers and my boyfriends had the same permission to go out with friends as I did.

_____ I think I can go anywhere I want

_____ I am not afraid to walk alone in a dark street.

_____ I've never had body image issues.

_____ I've never did compare my own body image to the patterns in the media.

_____ Because of my body image, I've never lost jobs or opportunities

Survey 3 - Post scene
Workshop number ID:

1 - Please describe to us the scene that you have just seen:

2- Could the scenes you've just seen be considered to be emotionally aggressive?

3- Do you think the scenes you've just seen could happen in your everyday life?

- ☐ I am certainly yes
☐ I am certainly no
☐ I am not sure if yes or no

4- After watching the show or scene, do you have a feeling that you will take something from the scene into your personal life?

5 - What was the most memorable thing about the show or the scene?

6 - What was the most memorable thing about the show or the scene?

7 - With regard to the workshop or the show, do you feel that you are invited to act or to take action in your personal life?

Invitation:

"Aya"

Residência para Mulheres- Projeto-Piloto

E se pudéssemos nos juntar para, por meio das artes performativas, abordar temas de interesse coletivo como as opressões sobre o nosso corpo e como nos relacionamos com a moda?

Nos dias 25 e 26 de junho vamos realizar uma residência artística para artistas e não artistas que trata do tema da moda e seus mecanismos de opressão, através de técnicas de teatro, em especial, a "Estética do oprimido".

O resultado final será apresentado no fim do segundo dia: uma pequena cena de teatro, produzida de forma coletiva.

Carga horária: 2 dias, 13h às 17h - com apresentação de resultados no segundo dia às 18h

Dress-code: roupas confortáveis.

Confirmar presença: s-lchagas@ucp.pt (Falar com Vida Oliveira)

ATENÇÃO!

A residência fará recolha de dados, sempre preservando a anonimização das participantes, de forma anónima e apenas para fins da pesquisa científica a qual está vinculada.

Informed consent:

Consentimento Informado

O presente estudo está a decorrer na Escola das Artes da Universidade Católica do Porto (campus Foz) e no Espaço Casa Odara, sob a coordenação da doutoranda Lorena de Oliveira Chagas sob orientação da Professora Doutora Cristina Sá e coorientação do Professor Doutor André Baltazar". A investigação baseada em arte "Aya - Não tenho medo de ti", tem como objetivo, compreender de que forma é que se dá a recepção de espetáculos interativos, que se propõem a uma interpelação contrahegemónica e politicamente engajada. A sua participação será voluntária, não estando prevista qualquer despesa ou forma de remuneração às participantes e não estão previstos quaisquer riscos que possam decorrer da sua participação. A recolha dos dados desta investigação decorrerá em 6 dias, tendo os cinco primeiros duração de 4h cada e o ultimo de 2h (uma apresentação ao público geral com interações com a audiência) Durante este intervalo, serão recolhidas de forma voluntária informações relativas aos dados sócio demográficos, serão dadas pela participante as respostas aos instrumentos incluídos na presente investigação. A informação recolhida e tratada no âmbito desta investigação será estritamente confidencial, sendo assegurado o anonimato de todos os participantes do estudo. Os dados recolhidos serão utilizados exclusivamente para fins académicos. A qualquer momento pode desistir da sua participação sem quaisquer consequências. Para o esclarecimento de qualquer dúvida poderá contactar o investigador através do seguinte contacto:

Nome: Lorena de Oliveira Chagas E-mail: vidadeoliveira3@gmail.com

Data:/...../..... | Assinatura do Participante: _____

Data:/...../..... | Assinatura do Investigador: _____

.....

Para o participante:

Eu declaro ter lido e compreendido este documento, bem como as informações verbais que me foram fornecidas. Foi-me garantida a possibilidade de, em qualquer altura, recusar participar neste estudo sem qualquer tipo de consequências. Desta forma, aceito participar neste estudo e permito a utilização dos dados que de forma voluntária forneço, confiando em que apenas serão utilizados para esta investigação e nas garantias de confidencialidade e anonimato que me são dadas pela investigadora.

Assinatura do Participante _____ | Data:/...../.....

APPENDIX D
Observation sheets

Observation sheet – Makupuni
Observation sheet – AYA

APPENDIX E
Pachts & Codes

https://drive.google.com/file/d/19I1BQWce0Y31sLLC_69Q3Rce23EMuC6Q/view?usp=sharing

APPENDIX F
Data collected

Público presente

Público presente

Carimbo de data/hora	Pessoas na área de visualização	Adultos	Jovens	Crianças
2023-07-25 12:04:18.612	21	12	5	4
2023-07-25 12:09:49.848	30	21	5	4
sum of both data	51	33	10	8

Interação do público: 1º momento de votação

Carimbo de data/hora	Há espectadores que não votam?	Quantos?
2023-07-25 12:04:18.612	Yes	1
2023-07-25 12:09:49.848	Yes	3
sum of both data	Yes	4

Interação do público: 2º momento de votação

Carimbo de data/hora	Há espectadores que não votam?	Quantos?
2023-07-25 12:04:18.612	Yes	1

2023-07-25	Yes	3
12:09:49.848		
sum of both data	Yes	4

Interação do público: 3º momento de votação

Carimbo de data/hora	Número de espectadores que não votam
2023-07-25 12:04:18.612	1
2023-07-25 12:09:49.848	3
sum of both data	4

Chegada do público antes do início do espetáculo

Carimbo de data/hora	Chegam em grupos? (quantidade)
2023-07-25 12:04:18.612	5
2023-07-25 12:09:49.848	5
sum of both data	10

EDA & HR data

Baseline_EDA	Baseline_FC	Apresentação_EDA	apresentação_FC	Amplitude da mudança entre a Baseline e Apresentação (em %)
3,79	63,87	8,3	84,33	218,9973615
7,93	85,23	19,6	93,25	247,1626734
5,77	71,43	11,23	91,04	194,627383
5,28	72,55	10,88	83,26	206,0606061
6,01	74,82	12,56	83,26	208,985025
3,24	61,4	7,77	70,23	239,8148148
7,85	75,95	15,74	91,04	200,5095541
2,88	60,99	6,72	76,51	233,3333333

Realizar o teste de diferença não-paramétrico:

Wilcoxon_AED

Wilcoxon_FC

No SPSS: Menu Analyze > Nonparametric Tests > Related Samples.

Selecione o Wilcoxon Signed-Rank Test

Socio-demographic data

 Carimbo de data/hora	ID participante	Idade	Estado Civil	Habilitações Literárias	Nacionalidade	Grupo étnico racial Majoritário	Coluna 1
22/07/2024 11:27:20	RI085L11	18	Solteira	Ensino Secundário	Portuguesa	Branco/a: Origem portuguesa / Europeia	
22/07/2024 11:28:12	IR04D530	39	Solteira	Ensino superior (Doutoramento)	Brasileira	Origens indígenas americanas	
22/07/2024 11:28:57	AB01CFP0	19	Solteira	Ensino Secundário	Portuguesa	Branco/a: Origem portuguesa / Europeia	
22/07/2024 11:32:51	OM06AC28	21	Solteira	Ensino Secundário	Brasileira	Branco/a: Origem portuguesa / Europeia	
22/07/2024 11:34:21	SJ08JM08	35	Solteira	Ensino Secundário	BRASILEIRA	Mestiço (duas ou mais origens étnicas)	
22/07/2024 11:35:09	AR07CP24	18	Solteira	Ensino Secundário	PORTUGUESA	Branco/a: Origem portuguesa / Europeia	
22/07/2024 11:35:50	RP02MP13	19	Solteira	Ensino Secundário	PORTUGUESA	Branco/a: Origem portuguesa / Europeia	
22/07/2024 11:36:34	AV02IR04	21	Solteira	Ensino Secundário	LUSO-BRASILEIRA	Branco/a: Origem portuguesa / Europeia	
22/07/2024 15:10:19	AA09MP12	31	Solteira	Ensino Superior (Mestrado)	PORTUGUESA	Branco/a: Origem portuguesa / Europeia	

Empowerment Levels - data

[illegible]

Empowerment levels data-analyse

Question	Initial Mean	Follow-up Mean	Difference	P-value	Trend	Significance Level
Tive acesso a educação sexual e a contraceptivos quando era adolescente	4,86	3	-1,86	0,0422	decrease	significant (p < 0.05)
Considero que posso ir onde quiser	3,86	2,43	-1,43	0,0571	decrease	near-significant (0.05 ≤ p < 0.10)
Não tenho medo de andar sozinha numa rua escura	1,57	3	1,43	0,0781	increase	near-significant (0.05 ≤ p < 0.10)
Sou uma mulher confiante de que meu trabalho é adequado para mulheres	4,71	3,57	-1,14	0,2207	decrease	insignificant (p ≥ 0.10)
Se eu fosse um homem, isso bastar-me-ia para ganhar mais dinheiro no meu trabalho	2,14	3,14	1	0,1108	increase	insignificant (p ≥ 0.10)
A minha família investiu tanto na minha independência económica como na carreira do meu irmão	4,29	3,43	-0,86	0,1957	decrease	insignificant (p ≥ 0.10)
Estou confiante de que posso escolher quando ter filhos	4,43	3,71	-0,71	0,4497	decrease	insignificant (p ≥ 0.10)
Através do governo ou dos meus próprios recursos, tenho fácil acesso a contraceptivos	4,43	3,43	-1	0,2228	decrease	insignificant (p ≥ 0.10)
Em minha casa, homens e mulheres partilham igualmente tarefas de limpeza e a arrumação da casa	3,29	3,86	0,57	0,6875	increase	insignificant (p ≥ 0.10)
Em minha casa, não sou a única responsável por fazer a lista de compras do supermercado	4,57	3,29	-1,29	0,1025	decrease	insignificant (p ≥ 0.10)
Em minha casa, não sou a única responsável pela lavagem da roupa	4,71	3,43	-1,29	0,1025	decrease	insignificant (p ≥ 0.10)
Sou a principal (ou uma das principais) responsáveis pelo sustento financeiro da minha casa	1,29	2,29	1	0,1025	increase	insignificant (p ≥ 0.10)
Não preciso pedir autorização a ninguém para sair	2,57	2,29	-0,29	0,593	decrease	insignificant (p ≥ 0.10)
Quando eu era criança / adolescente, os meus irmãos, amigos e namorados tinham a mesma permissão que eu para sair com amigos	2,43	3,29	0,86	0,3304	increase	insignificant (p ≥ 0.10)
Nunca tive problemas com a minha imagem corporal	2,43	2,14	-0,29	0,5807	decrease	insignificant (p ≥ 0.10)
Nunca comparei a minha própria imagem corporal com os padrões dos meios de comunicação social	2,43	2,57	0,14	0,8316	increase	insignificant (p ≥ 0.10)
Nunca Perdi empregos ou oportunidades por causa da minha imagem corporal	3	1,86	-1,14	0,1441	decrease	insignificant (p ≥ 0.10)

Carimbo de data/hora	Qual a sua idade?	Qual o código postal de onde você vive?	Nos momentos de votação você teve dúvidas sobre como votar?	Se sentiu interessado em votar e participar?	Após o show, ainda lembra de questões levantadas quando os momentos de votação?	Há alguma reflexão levantada pelo espetáculo que você para o seu dia-a-dia ou sua vida pessoal? Se sim, quais?	Há algo que não foi perguntado e que gostaria de registrar aqui?
2023/05/21 12:05:59	56	4450	Não	Sim	Não	Escolhas permanentes	
2023/05/21 12:06:08	50	4250	Não	Sim	Sim	As nossas escolhas na vida	
2023/05/21 12:08:03	39	4250552	Não	Sim	Sim	as novas tecnologias na vida das crianças	nao
2023/05/21 12:08:32	53	4460	Não	Sim	Sim		
2023/05/21 12:10:34	49	4460253	Não	Sim	Sim	Aceitar a diferença	Não
2023/05/21 12:14:35	35	4100458	Não	Sim	Lembro de algumas questões	Sim, sobre a aceitação de diferenças e sobre os impactos da chegada de uma criança.	Não
2023/05/21 12:21:28	24	4700	Sim	Sim	Sim		
2023/05/21 16:36:00	36	4000	Em alguns momentos	Sim	Sim		
2023/05/21 22:45:36	37	4100458	Não	Sim	Lembro de algumas questões	Sim. Os desafios de ter uma criança a expectativa dos pais em relação aos filhos	