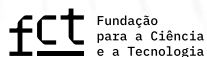


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# Multimodus '25

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Um agradecimento especial à Comissão Científica, que muito dignifica esta iniciativa, e a todos os autores a quem se agradece as suas generosas contribuições pela partilha do conhecimento, competências e experiências.

Por fim, um agradecimento aos alunos da Universidade de Évora e do Politécnico de Portalegre que enriqueceram este evento com os seus trabalhos artísticos.





## Introduction | Apresentação

A MULTIMODUS é uma conferência científica internacional dedicada ao som e à imagem no contexto contemporâneo da arte e do design. A sua primeira edição teve lugar em 2022, organizada pelo Departamento de Artes, Design e Animação da Escola Superior de Tecnologia, Gestão e Design do Politécnico de Portalegre (IPP). Em 2025, a Universidade de Évora, através do CHAIA – Centro de Investigação de História de Arte e Investigação Artística, associa-se ao IPP para a realização da segunda edição do evento, que decorre nos dias 2 e 3 de abril, em formato híbrido, na Escola de Artes da Universidade de Évora.

Este evento afirma-se como um espaço privilegiado de discussão e reflexão sobre os processos criativos na arte e no design, explorando as suas múltiplas possibilidades na produção audiovisual. Surge do desejo de investigar, de forma simultaneamente criativa e científica, as interseções entre estas áreas, fundamentais para as indústrias criativas. Para além disso, reforça a importância de descentralizar o acesso ao conhecimento e à cultura, promovendo uma maior diversidade de vozes e perspetivas no panorama nacional.

O programa contará com oradores de renome, cujos projetos científicos e artísticos são amplamente reconhecidos a nível nacional e internacional. Além disso, seis painéis temáticos reúnem investigadores que exploram diferentes abordagens teóricas e práticas, promovendo diálogos entre as linguagens sonora, visual e verbal.

Dirigido a estudantes, docentes, investigadores, empreendedores e profissionais criativos e técnicos de diversas áreas, o evento vai além do programa científico, incluindo *artist talk*, *workshops*, sessões de cinema, exposições e concertos.

Com esta segunda edição, a comissão organizadora reforça o seu compromisso com o desenvolvimento do panorama artístico e científico, promovendo novas parcerias interinstitucionais, ampliando as interações e fortalecendo diálogos interdisciplinares, à semelhança da colaboração que deu origem a esta edição.

A Comissão Organizadora



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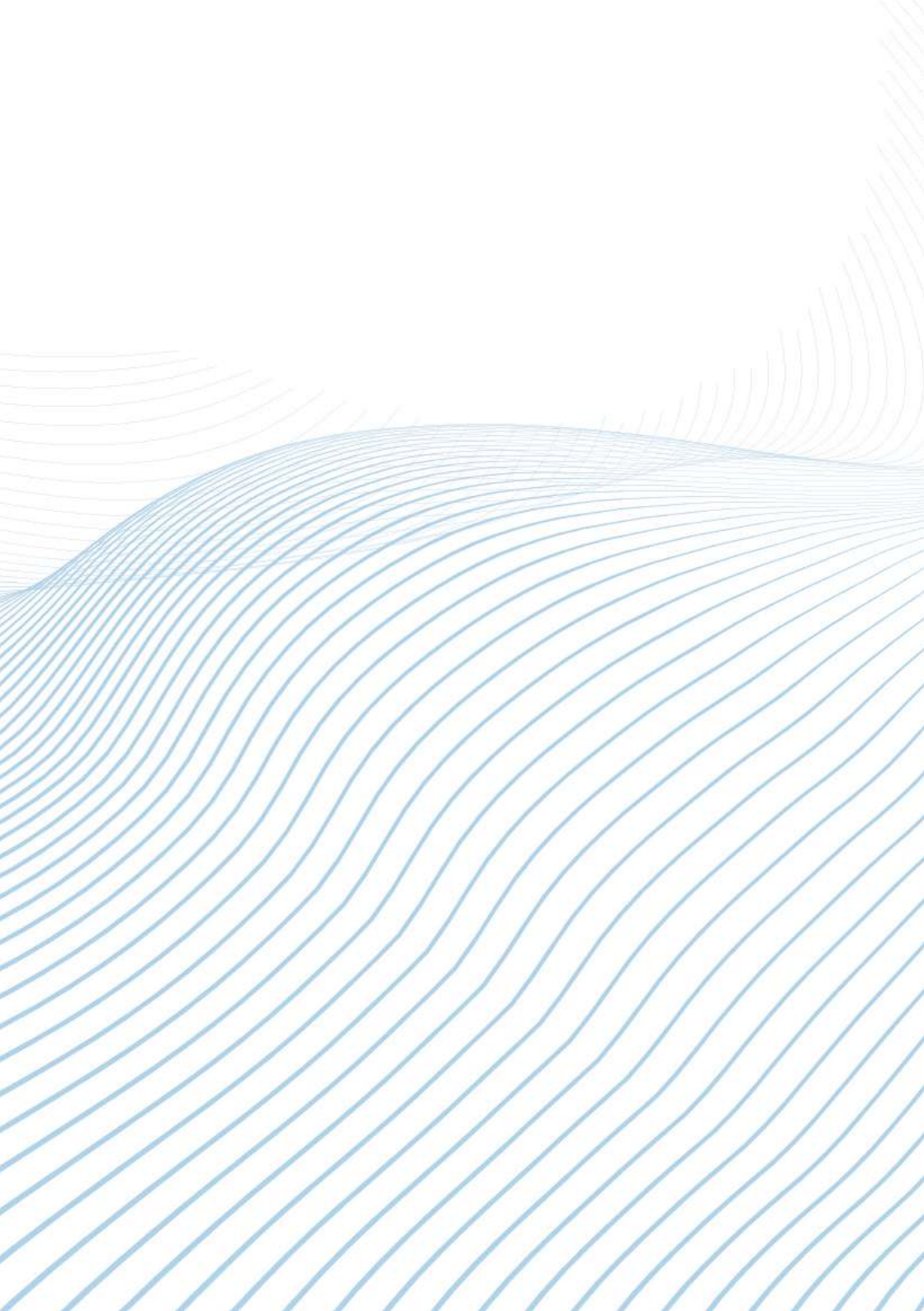
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## Organization



## Partnerships







KEYNOTE SPEAKERS | ORADORES PRINCIPAIS  
ARTIST TALK | CONVERSA COM ARTISTA







## Miguel Carvalhais

Keynote title

From Analogue to Metaphor: Art in the computational turn.

17

**Biography |** Miguel Carvalhais is a designer, artist, musician, and Professor of Design at the Faculty of Fine Arts of the University of Porto. His research explores computational art, design, and aesthetics, topics to which he has dedicated two books: “Art and Computation” (2022, V2\_) and “Artificial Aesthetics” (2016, U. Porto Press). His artistic practice is developed between computational music, sound art, performance, and installation, collaborating with Pedro Tudela in the @c project, and often with other sound and visual artists. He runs Crónica, a label for experimental music and sound art, and the xCoAx conference on computation, communication, aesthetics, and x.

<http://www.carvalhais.org>



## Tarik Barri

Keynote title

Creating Visual Music

18

**Biography |** Tarik Barri is a builder of audiovisual worlds. As an audiovisual composer and software developer, he programs his own tools for performance and composition. As co-founder of Showsync, he co-developed Videosync – software that extends Ableton Live into an audiovisual engine for controlling visuals alongside music. While his work is built on technical foundations, his approach is guided more by intuition than analysis – seeking that resonance between sound and image where they become inseparable. His work takes various forms including installations, videos and AV performances. Barri frequently collaborates with artists like Thom Yorke, Ben Frost, Nicolas Jaar, and Robert Henke.

<http://tarikbarri.nl/>



## **Fernando Mota**

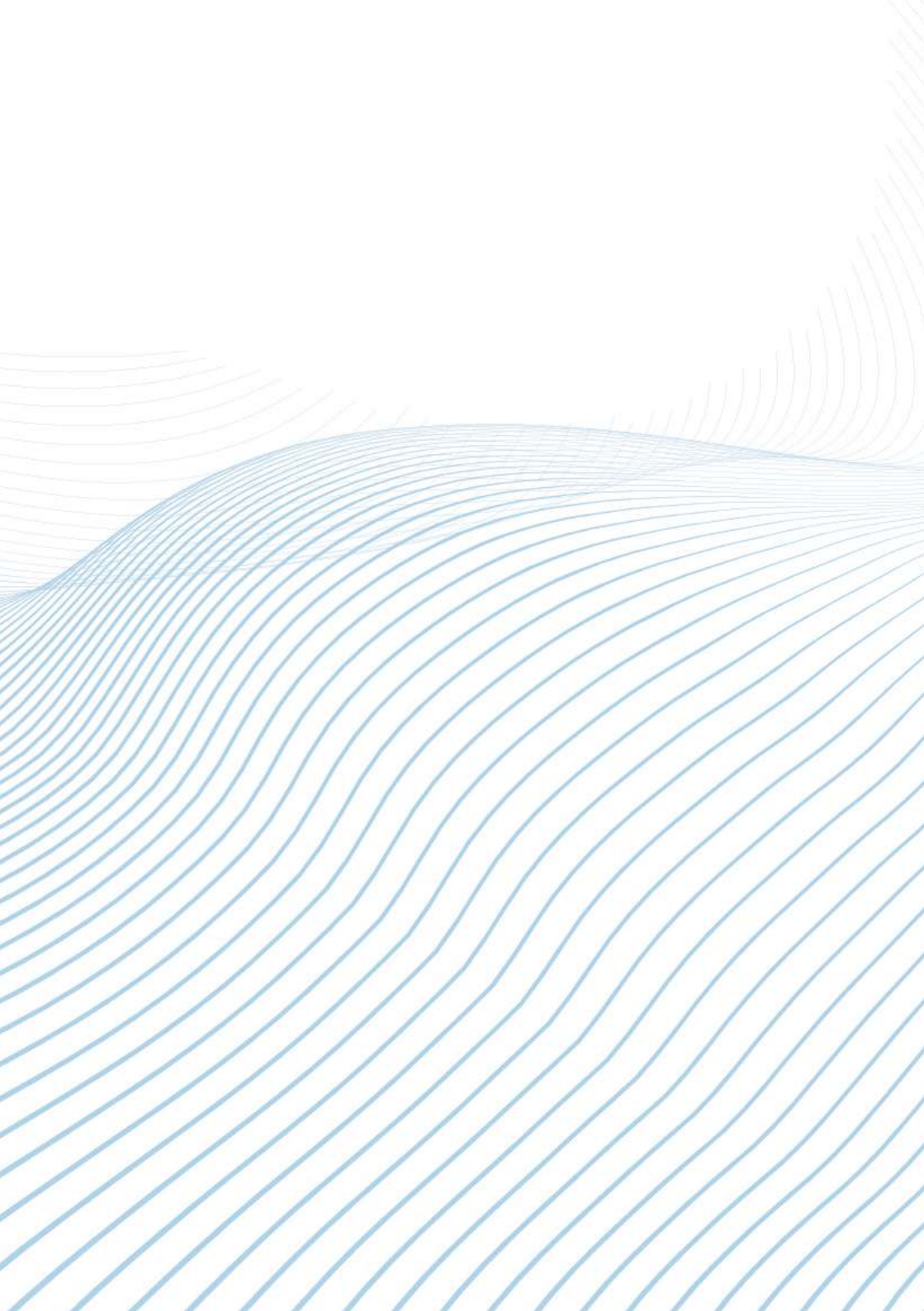
Artist Talk

The Creative Process

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**Biography |** Composer, musician, and performer, Fernando Mota has been developing a multidisciplinary approach that blends music, theatre, visual arts, and poetry to create performances, installations and film. He regularly composes music for theatre, dance, and cinema. His work is shaped by the intersection of diverse languages, geographies, and tools, as well as the exploration of the expressive and symbolic potential of natural elements and spaces, alongside the creation of experimental musical instruments.

[www.fernandomota.com](http://www.fernandomota.com)





ABSTRACTS | RESUMOS

## Exploring Social Issues Through Image in a Gastronomy Experience

**José Simões**

ESAD.IDEA – Investigação em Design e Arte e Escola Superior de Artes e Design

**Ricardo Bonacho**

ELISAVA Barcelona School of Design and Engineering / Faculdade de Ciências Sociais e Tecnologia da Universidade Europeia

### Abstract

In gastronomic performative experiences, the importance of image goes beyond the mere aesthetics and is one of the most important elements of the gastronomic experience. Food presentation, atmosphere, and visual storytelling have become integral to performative dining, creating a multisensory engagement that enhances the pleasure of consumption, builds impact feelings and has the ability to shape perceptions and evoke emotions. Beyond the plate, the environment in which food is consumed plays a critical role in shaping the gastronomic narrative. In a world where storytelling and sensory engagement are crucial, the image has become an essential element of modern culinary innovation.

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The psychological or emotional impact of imagery in gastronomy lies in its ability to transcend the visual and engage the mind on multiple levels. By priming anticipation, shaping expectations, and evoking emotions, imagery transforms food into a multi-dimensional experience. It connects diners to the culinary narrative, creating lasting impressions that remain long after the meal is over. Images in gastronomy tap into deep emotional triggers, evoking such as horror, anger, surprise, sadness, anxiety, disgust, etc. This interplay between image and perception underscores the performative essence of gastronomy, where every detail is meticulously designed to connect with the diner.

A performative gastronomic experience was designed to explore and assess emotional and sensorial responses. This experience aimed to highlight humanitarian issues through dishes that were carefully designed and paired with performative moments. The storytelling of the experience delved into themes such as social (in)justice, dichotomy between rich and poor, food waste and hunger, pollution, war, climate change, and the future of food. By carefully curating the visual elements of the dishes such as textures, colours, spatial organization and ingredient selection it was



possible to evoke specific moods and established emotional connections that elevated the dining experience.

The study conducted within this context focused also on the impact of imagery on the diners' emotional responses. Overall, the findings revealed that "aesthetic appreciation" was the most mentioned emotion, underscoring the decisive role of food presentation in awakening emotions. Notably the "hunger dish" (see figure) elicited profound emotional reactions, with diners reporting feelings of horror, anger and sadness due to its striking aesthetics and provocative food concept.

The interplay between image and gastronomy has redefined how we perceive and experience food. Visual appeal has become as integral as taste, deepening our connection to the culinary world. Through an artistic presentation, gastronomy transcends its functional purpose, transforming into a multisensory experience that can raise awareness of critical social and humanitarian issues.

Acknowledgments to the Fundação para a Ciência e a Tecnologia for funding the study.

**Figure 1.** *The "hunger dish"*



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## References

Bonacho, R. (2019). Design Bites. A prática do design nas artes culinárias. (Doctoral Thesis, Universidade de Lisboa (Portugal)).

Simões, J. A. (2024). Grito no Prato: o papel do design para a alimentação numa experiência gastronómica e performativa de sensibilização para

causas humanitárias (Master Dissertation, ESHTe-Escola Superior de Hotelaria e Turismo do Estoril (Portugal)).

Gupta, S., Bertran, F. A., 'Oz'Buruk, O., Espinosa, S. M., Jean Tanenbaum, T., & Wu, M. (2021). Exploring food based interactive, multi-sensory, and tangible storytelling experiences. In Proceedings of the 2021 ACM Designing Interactive Systems Conference (pp. 651-665).

Pradeep, M., & Eugene, J. (2023). Effects of food on human emotions: an overview. EPRA International Journal of Multidisciplinary Research, 9(5), 245-252.

Wrigley, C., & Ramsey, R. (2016). Emotional food design: From designing food products to designing food systems. International Journal of Food Design, 1(1), 11-28.



## Exploring the Intersection of the Portuguese Revolution, Multimedia Technology

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### Abstract

The events of 25 April 1974, commonly known as the Carnation Revolution, indisputably marked a pivotal turning point in Portuguese history. This seminal moment unequivocally paved the way for the country's transition to democracy, with far-reaching consequences that reverberate in contemporary Portugal. This seminal event was characterized by a peaceful coup d'état, where the military, in collaboration with the general population, overthrew the oppressive regime. The subsequent years were marked by a period of political and social upheaval as the country faced the challenge of establishing a new democratic framework.

As we commemorate the 50th anniversary of this historic revolution, it is vital that we explore the role of illustrated books in capturing and disseminating the narratives surrounding this event. We must also consider the potential of emerging technologies, such as augmented reality, to enhance and enrich these storytelling efforts.

In this research, we present a pedagogical activity, taking place at Polytechnic of Portalegre, based on the development of visual artifacts comprised of illustrated books, short animations and augmented reality. These technologies often transcend linguistic barriers and engage a wide audience (Noronha, 2022). In the context of the Carnation Revolution, these visually driven publications can serve to preserve and transmit the spirit of the revolution. They foster a deeper understanding and appreciation of its significance.

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**Figura 1.** Ilustração retirada do livro Soldadinho de Chumbo



Nota. Autoria de Matilde Oliveira

## References / Bibliography

Gonçalves Noronha, M., Donida, L., & Santana, A. P. (2022). O Uso de Tecnologias Digitais para a Linguagem Escrita: Revisão da Produção Acadêmica nas Revistas Brasileiras de Fonoaudiologia. *Desafios - Revista Interdisciplinar Da Universidade Federal Do Tocantins*, 9(1), 129–141. <https://doi.org/10.20873/uftv9-11975>

## Estereótipos e Tabus nos Processos Criativos da Representação Erótica Masculina

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### Resumo

Aqui estamos para refletir sobre os processos criativos que se processam fluidamente e que dão início a uma investigação partindo de um indício ou tema. Mas, é igualmente importante refletir sobre aqueles caminhos de pesquisa que tentamos evitar, porque não queremos desafiar pressupostos culturais assentes em dogmas de qualquer poder enraizado. Um deles é o erotismo como tema em geral, mas mais especificamente, o erotismo a partir do corpo masculino e os olhares que esse corpo desperta. A sua representação nas artes visuais, o seu simbolismo, seja em termos de corpo ou de género, seja em formas materiais visíveis ou pensamentos abstratos literários oscilam frequentemente entre o tabu e o estereótipo mais até do que a representação do universo feminino porque este esteve (quase) sempre de forma unidirecional ao serviço de um restrito grupo de homens detentores do poder que funcionaram como molde para a larga maioria masculina. O custo desta atitude trouxe por um lado, a exploração visual do corpo da mulher e do feminino e por outro, a ofuscação da própria sexualidade masculina. O erótico masculino é quase inexistente nas artes em Portugal do século passado, mas com mostras de abertura na segunda metade do séc. XX até aos dias de hoje. Em termos de arte erudita essa abertura deu-se com mais intensidade a partir da Revolução dos Cravos, com representações emancipatórias e de crítica política, que depois evoluíram com Júlio Pomar para um entrosamento visível com o feminino, se transferiram em termos de género e de papel nos quadros de Paula Rego, se registaram em gestos violentos nas nossas tradições exprimidas por Graça Morais e se afirmaram com a consciência do seu próprio corpo com João Gabriel ou com a dupla João Pedro Vale e Nuno Alexandre Ferreira.

Mas, é pela via popular que a representação do corpo masculino vive solto de amarras e encontra graça e naturalidade. As referências estão aí, em lojas, na decoração, nos doces e canções que nos levam a encarar o tema como objeto de reflexão e a estimular o processo criativo dos artistas homens sobre o seu próprio corpo e prazer, das artistas mulheres sobre o corpo dos homens e dos artistas em geral sobre o sexo e o género masculino nas artes.

**Figura 1.** *The naked portraits*



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*Nota.* Pintura da autoria de Daniela Guerreiro, em óleo sobre tela, 190 x 130 cm, 2022-2023. Fotografia tirada no Atelier Natália Gromicho.

## Referências / Bibliografia

Butler, J. *Problemas de género*. Orfeu negro, Lisboa, 2017. [Trad. Nuno Quintas].

Grosso, I. *Casa Vale Ferreira: João Pedro Vale + Nuno Alexandre Ferreira*. Fundação Serralves, Porto, 2024. [Brochura de apresentação da exposição].

Lucie-Smith, E. *Eroticism in western art*. Thames and Hudson (The world of art library), London, 1972.

von Hafe Pérez, M. *Pré/Pós-Declinações Visuais do 25 de abril*. Fundação Serralves, Porto, 2024. [Brochura de apresentação da exposição].

## The Landscape Through the Eyes and Touch of Gabriela Albergaria

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### Abstract

The term "landscape" emerged in the 17th century as a genre of painting, where the natural panorama became the primary theme. Initially regarded as a minor genre, landscape painting gained recognition by the 19th century. In the mid-20th century, reality, life, and vegetation became central themes in conceptual, environmental, and time-based art movements, transforming the artist's relationship with nature and emphasizing the act of walking as an artistic process. (Johansson, 2008; Simões, 2024)

This shift also brought elements of nature into the artistic realm—not just as objects of study but as physical materials. Today, landscape spans multiple mediums, including painting, drawing, photography, film, and video, bridging art with common sensibilities. (Sardo, 2014)

Gabriela Albergaria (b. 1965) exemplifies this evolution through her multidisciplinary practice that integrates drawing, sculpture, photography, and large scale installations. Her work interrogates the contemporary concept of landscape, examining humanity's complex relationship with nature. Constantly traversing Portugal and the world, her nomadic artistic process—marked by numerous residencies—culminates in site-specific installations and exhibitions that reimagine the role of landscape in the 21st century. (Nunes, 2020)

The work of Gabriela Albergaria not only redefines the landscape but challenges the dichotomy between natural and artificial. By repositioning natural elements within the context of contemporary art, Albergaria critiques humanity's impact on the environment while celebrating its fragility and resilience. Her contributions situate her as a pivotal figure in revaluing landscape as a dynamic, multidisciplinary field.

This work is part of a doctoral research that aims to show how Gabriela Albergaria's work has contributed, through her multidisciplinary artistic practice, to the reinvention of the relationship between Art and Nature in the 20th and 21st centuries, integrating it into the continuity of a line

of creative exploration of the landscape, initiated by female artists from postmodernism onwards. Therefore, this communication purposes to present the creative and exhibition process of Albergaria.

## References / Bibliography

Johansson, A. (2008). The revival of Landscape art. In R. Delue & J. Elkins, *Landscape Theory* (pp. 221-229). Taylor and Francis Group, Irland.

Simões, J. L. (2024, October 15). Pintar a paisagem hoje. In *And painting? A pintura contemporânea em questão*. [https://repositorio.ulisboa.pt/bitstream/10451/15902/2/ULFBA\\_andpainting\\_joaosimoes.pdf](https://repositorio.ulisboa.pt/bitstream/10451/15902/2/ULFBA_andpainting_joaosimoes.pdf)

Sardo, D. (2014, May 10). Paisagem. In *Dicionário Crítico de Arte*. <http://www.artecoa.pt/index.php?Language=pt&Page=Saberes&SubPage=ComunicacaoELin guagemArte& Menu2=ArteVidaEMeio&Filtro=109&Slide=109>

Nunes, P. S. (2020). Gabriela Albergaria, sob o signo da naturalness of the artificial. In Leandro, S. *Artistas Plásticas em Portugal* (p. 294-325). Manufatura editora, Lisbon.

## Communicating the City's Heritage Through Design

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### Abstract

This study aims to highlight the role of graphic design as a storyteller of a city's visual communication by interpreting local heritage elements and imbuing them with meaning and relevance in the present. By associating identity and graphic branding with a place or city, the designer's intervention becomes fundamental in establishing a visual identity program that dignifies the city's symbols, captures its spirit, and promotes cultural differentiation and enrichment.

In this context, the present research proposes a methodology based on a literature review and the application of a practical project in the Bachelor's degree of Audiovisual and Multimedia, at Polytechnic Institute of Beja, across different cities and timeframes for project development. The initial implementation of this project focused on developing a graphic identity for a future initiative titled "BEJA VISUAL", which aims to communicate the tangible and intangible cultural heritage of the city of Beja, located in the "Baixo Alentejo" region of southern Portugal. Students were allocated half a semester to develop the project, which was divided into three distinct phases of development.

In the current academic year, the scope of the exercise was expanded to include other cities chosen by students, depending on their personal connections to those locations. This alternative option allowed students to focus on the heritage of cities where they live or study. Over five academic years, this project has been applied, with a notable variation in 2023/24, when it was tested during a workshop held in Mainz, Germany. In this workshop, a group of Bachelor's students from Communication Design at School of Design, Hochschule Mainz - University of Applied Sciences, tackled the same objective of emphasizing heritage elements. However, the development timeframe was significantly shorter (4 hours). Despite this constraint, the students successfully identified Mainz's distinctive characteristics and effectively communicated them through the creation of the city brand "MAINZ VISUAL", showcasing how design can add value to the city's heritage.

The project encouraged students to observe their surroundings in new ways and design a brand that reflects the unique characteristics and essence of the cities they inhabit or study in. These brands aimed to highlight the identity, culture, values, and history of the places, fostering meaningful and emotional connections with audiences. Thus, design played a pivotal role in the symbolic construction of an identity proposal for the cities, adding value to their heritage and enabling a reinterpretation of urban elements. These reinterpretations provided the foundation for new graphic products inspired by the urban landscape.

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## References / Bibliography

Anholt, S. (2010). Some important distinctions in place branding. *Place Branding and Public Diplomacy*. Palgrave Macmillan. <https://doi.org/10.1057/pb.2008.16>

Gibson, D. (2009). *The Wayfinding Handbook: Information Design for Public Places* (p. 73). Princeton Architectural Press.

Landa, R. (2006). *Designing Brand Experiences*. Thomson, Delmar Learning.

Ribeiro, E., Raposo, D., & Menezes, M. (2018). Entre a imagem e a identidade de uma Cidade Património Cultural [Between the image and the identity of a Cultural Heritage City]. *Convergências - Journal of Research and Arts Education*, 11(21). <http://convergencias.esart.ipcb.pt/?p=article&id=289>

Yázigi, E. (2001). *A Alma do Lugar: Turismo, Planejamento e Cotidiano* [The Soul of the Place: Tourism, Planning and Daily Life]. Contexto. (Citado em Alves, K. [2014]. O turismo pedagógico como indutor de lugares identitários para reconhecer, interpretar e reservar [Pedagogical tourism as inductor of identity places to recognize, interpret and reserve]. *Revista Turismo & Desenvolvimento*, 4(21/22), 483–491).



## Virtual Adufe – A VR Musical Experience

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### Abstract

In this article we propose the development of a VR environment in conjunction with a sampling-based synthesis engine created for the traditional Portuguese instrument Adufe, as part of the TRADIGITAL project. This virtual experience is intended for preservation and educational purposes, either in schools or museums, as well as recreational ones for people that are curious about the experience of playing the Adufe but don't have the opportunity for such because of its physical nature.

This article describes the development of the virtual experience, from creating a sample based virtual instrument that can be played with the use of a VR headset without its controllers, to creating an immersive 3D environment based on a real life location. The user can walk around a virtual Portuguese inspired village and grab the Adufe to not only play, but to learn about it and its sound. This article presents the ongoing work to develop a virtual environment for recreating traditional instruments. This project is part of the TRADIGITAL project, for the development of digital instruments inspired by traditional instruments and aims to provide an interactive experience for the musical use of the recreated instruments, as well as for the exploration of the imagery related to traditional music, and simultaneously with current 3D imaging and sound synthesis technologies.

## References / Bibliography

Armitage, J., Magnusson, T. and McPherson, A. (2023). Studying Subtle and Detailed Digital Lutherie: Motivational Contexts and Technical Needs. Proceedings of the International Conference on New Interfaces for Musical Expression.

Armitage, J. Shepardson, Ulfarsson, H., Magnusson, T. (2022). The Proto-Langspil: Launching an Icelandic NIME Research Lab with the Help of a Marginalised Instrument. New Interfaces for Musical Expression 2022 Conference. <https://doi.org/10.21428/92fbeb44.6178f575>.

Çamcı, A., & Hamilton, R. (2020). Audio-first VR: New perspectives on musical experiences in virtual environments. *Journal of New Music Research*, 49(1), 1–7. <https://doi.org/10.1080/09298215.2019.1707234>

McPherson, Andrew and Kim, Youngmoo (2010). Augmenting the Acoustic Piano with Electromagnetic String Actuation and Continuous Key Position Sensing. Proceedings of the International Conference on New Interfaces for Musical Expression. DOI: 10.5281/zenodo.1177849

## **Artistic Collaboration: Lessons Learned From the Case Study Five Centuries, 50 Years - A Remembrance of the University of Évora - Video Mapping, Music, and Theatre**

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### **Abstract**

In this study, we employed a lessons-learned case study methodology (McDonald, 2015) to analyze the project Five Centuries, 50 Years - A Remembrance of the University of Évora, an audiovisual and performing arts show combining video mapping, sound design, music, and theatre. The production tells the history of the University of Évora from its founding to the present. Given the scale, complexity, and innovative nature of the project within its artistic-academic context, this case presents a valuable opportunity for in-depth analysis. The central research question guiding this study is: What key aspects of this artistic collaboration contributed to the success of the event as an engaging and educational audiovisual and performing arts show, and what areas could be improved for future projects? Through careful examination of the various components of the project, we identified several important conclusions relevant for future artistic collaborations, which we summarize here:

**Formal Organization:** The project was structured in a traditional manner, with limited oversight of individual tasks or artistic decisions. Despite the absence of strict management, the structure proved highly motivational, as team members enjoyed significant artistic freedom.

**Team Composition:** The creative team was assembled through an open call to faculty members of the School of Arts, operating on a voluntary basis. Considering the lack of prior collaborative experience, this was a significant risk for the project.

**Informal Organization:** The project's informal, flexible structure fostered great creative and production freedom. Work processes developed organically within sub-teams focused on specific tasks. Issues arising from occasional misalignments were resolved through a combination of

bottom-up discussions and top-down directives.

**Communication:** A combination of synchronous and asynchronous communication technologies was used. Two in-person production meetings proved crucial in resolving key project challenges and ensuring successful outcomes.

**Technical and Creative Expertise:** Team members possessed high levels of technical and creative competence in their respective fields. Certain multidimensional tasks required collaboration across different specialties to address specific challenges. Additionally, technical-creative skills, such as video mapping, necessitated external training to ensure a shared understanding of the medium.

**Schedules and Availability:** Remote work was easily coordinated through both synchronous and asynchronous means. However, scheduling in-person meetings with the larger team proved difficult due to the geographic dispersion of members and their existing academic and artistic commitments.

**Infrastructure and Equipment:** Most of the technical equipment used in the project was provided by staff members, with additional rented equipment for the performance night. While the university provided facilities for voice and music recording, the quality of the infrastructure did not meet professional standards.

**Script as a Guiding Framework:** The narrative script served as the central document guiding the technical development of the project. Refining the script was crucial for ensuring coherence in the final production. Creative decisions regarding visuals and sound were made only after the narrative structure had been finalized, preventing unnecessary work.

The event was deemed successful, as it was fully booked, and an unplanned rerun was commissioned four months after the premiere, despite the considerable technical budget involved.

**Figure 1.** Picture of the rehearsal, showing video mapping and an actor on stage.



## References

McDonald, R. A. (2015). *A Methodology for Identifying Lessons Learned - An Integration of Case Study Techniques with General Systems Paradigm and Congruence Theory* (First Edit). Center for the Study of National Reconnaissance.

## Digital Interactive Systems in the Education of Children With Special Educational Needs and Disabilities

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### Abstract

This article argues the importance of digital interactive artwork systems as a tool for including children with Special Educational Needs and Disabilities (SEND), making the bridge between technology and arts, two identified prosperous areas working with students and, especially with students with SEND. Due to the abovementioned fact, in this article, interactive systems always refer to a performative/artistic role – artwork - designed to interact with the performer and/or the audience through digital means. In this way, we argue that interactive systems are technological paths that can provide SEND learners with inclusion from an artistic and social point of view. Therefore, this article is not focused on a specific system but on several features that a system should offer to become an inclusive platform for SEND learners. Regarding the structure, this article presents a literature review concerning the use of technology, arts, and educational strategies for children with SEND. Also, a chapter identifies the needs of this type of student, and finally, it reports an experience in Portugal at Irene Rolo Foundation (Tavira) following the installation of Ligações Ocultas – Arte, Ciência e Tecnologia. This work aims to promote a multisensory exercise between sound and painting, providing an inclusive approach by interacting with various art forms. It also portrays the authors' first-person experience regarding this subject. This project provides an example that connects arts, technology, and education to those with SEND.

## References / Bibliography

*Drake Music Scotland*. (n.d.). Retrieved September 25, 2024, from <https://drakemusicscotland.org/> Earle, K., & Curry, G. (2005). *Meeting SEN in the Curriculum: ART*. David Fulton Publishers.

GDS. (2024). *Children with special educational needs and disabilities (SEND)*. Government Digital Service. <https://www.gov.uk/children-with-special-educational-needs>

UNESCO. (1994). The Salamanca statement and framework for action. *Policy, June*, 50.

Unesco IITE. (2011). *ICTs in Education for People with Disabilities*. European Agency for Development in Special Needs Education.

Wyeth, P., Kervin, L., Danby, S., Day, N., & Darmansjah, A. (2023). Digital Technologies to Support Young Children with Special Needs in Early Childhood Education and Care: A Literature Review. In *OECD Education Working Papers* (Issue 294).

# Between Body and Code: A LMA Driven Generative Audio-Visual Creation in the Performative Space of VR

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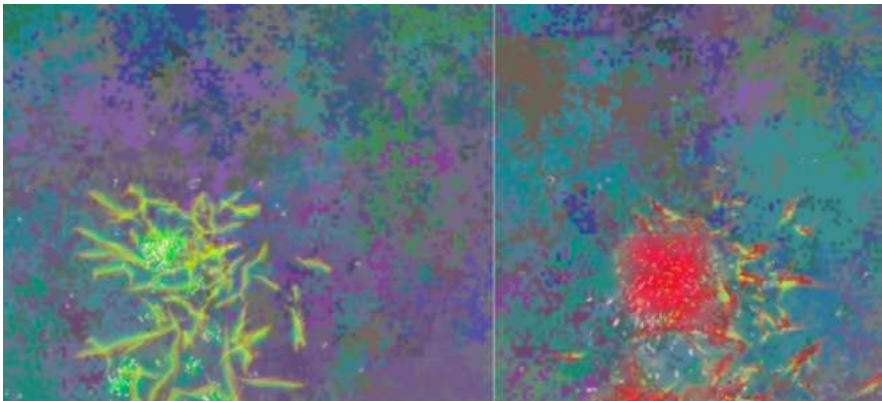
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## Abstract

Movement as a force that generates new graphic, acoustic and interactive expressions has been widely explored using digital technologies. Motion capture technology makes it possible to record spatio-temporal trajectories in order to reconstruct them virtually, disassociating movement from the physical body, within a cycle of movement, recording and recreation. This article explores the fusion between the gestures of live dancers and generative graphics and audio, using various techniques for this interaction. The interactive process begins with the use of Google MediaPipe to capture movement in real time, followed by Laban Motion Analysis (LMA) to interpret the quality of the movements. In addition, swarm techniques simulate particles that follow the body, particle systems create a diffuse body “mesh”, cellular automata generate a dynamic background, and FAUST produces responsive audio. This dynamic composition, called AVLMA (Audio-Visual and Laban Movement Analysis), is projected simultaneously in VR and on screen, providing both an overview and an immersive first-person perspective, increasing expressiveness and involvement in the performance.

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**Figure 1.** Two snapshots of the visual component captured at different moments during the show





## References / Bibliography

Ajili, I. Malle M., Didier J.Y. (2018). Human Motions and Emotions Recognition Inspired by LMA Qualities. *The Visual Computer*, 2019, 35, pp.1411–1426.

Bartenieff, I. (1974). Space, effort and the Brain. *Main Currents in Modern Thought*, 31 (1), pp.37- 40.

Boden, M., Edmonds, E. (2009). What is generative art? *Digital Creativity* 20(1-2):21-46. March

Von Neumann, J. (1966). *Theory of Self-Reproducing Automata*. Ed. Artur Brooks. University of Illinois Press

Galanter, P. (2003). What is Generative Art? Complexity Theory as a Context for Art Theory. In *9th Generative Art Conference*

## **Entre a Arte e a Ciência: nos Bastidores do Projeto Memórias da Azinhaga por Saramago – Oito Curtas Documentais**

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## **Resumo**

Num amplexo disciplinar que envolveu várias áreas do saber, o projeto, MAS (Memórias da Azinhaga por Saramago) incidiu na produção e realização de oito objetos fílmicos consubstanciados em excertos do livro *As Pequenas Memórias* de José Saramago (2014), onde perpassam paisagens, gentes e afetos da aldeia ribatejana que o viu nascer. Estas curtas-metragens foram pensadas como dispositivo de mediação entre o passado memorial e um presente vivencial, entrecruzando memórias de infância do nobilitado com memórias das pessoas que o recordam e se recordam, reconstruindo na memória o lugar/Azinhaga como património cultural (Silva et al., 2024).

Neste projeto de investigação propõe-se desvelar e sintetizar o processo de trabalho de uma equipa transdisciplinar, o qual partindo da análise literária da obra, passou pela contextualização sociocultural, histórica e geográfica da região, envolvendo recolha documental específica (jornais e fotografias), e culminando na criação de oito artefactos audiovisuais com valor simultaneamente artístico e documental. Por fim, reflete-se sobre a tensão existente entre a dimensão estética e científica inerente

ao filme documental, e quais as estratégias usadas na sua reconciliação.

A exibição das curtas-metragens teve lugar na Azinhaga para um público maioritariamente local, de diferentes gerações, cumprindo a sua função mediadora entre a obra artística e o contexto territorial e patrimonial, tornando-se um espaço de reflexão intercultural e intergeracional.

## Referências / Bibliografia

Saramago, José (2014). *As Pequenas Memórias*. Porto Editora. (Obra original publicada em 2006).

Silva, M. S., Romana, M., Carmo, A., & Domingos, S. (2024). O Filme Documental no Processo de Mediação Territorial, Cultural e Literária: O Projeto Memórias da Azinhaga por Saramago. *Biblos*, 65–94. <https://impactum-journals.uc.pt/biblos/article/view/14300/10516>

## A Crítica Rancièriana da Função Mimética da “imagem”: Os Desdobramentos do Imaginário no Regime Estético das Artes

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### Resumo

O momento de transição entre dois regimes de identificação das artes – do “Regime Representativo das Artes” para o “Regime Estético das Artes” – ocorre, segundo Jacques Rancière, quando se rompe o equilíbrio entre as dinâmicas de uma “natureza produtiva” (poiesis) e uma “natureza sensível” (aisthesis), devido ao desaparecimento da soberania normativa que regulava uma “natureza legislativa” (mimeses) entre ambas. As leis da mimese definiam uma relação regrada que, pelas normas da representação, permitiam a circunscrição exata dos limites de definição das “produções artísticas”. A consequência desta rutura é o advento de uma relação revolucionária entre poiesis e aisthesis que desencadeia um constante movimento de metamorfose, no qual se interpenetram as proliferações híbridas entre maneiras de sentir (os modos da sensibilidade) e a promessa de uma “humanidade nova” (os modos de fabricação do mundo). No âmbito das formas de produção estético-políticas dos diferentes géneros artísticos (e na diluição dos próprios géneros), acompanha-se a progressiva renúncia da ideia de “figura” e do “figurativo”. A análise de Jacques Rancière convoca uma discussão teórica na qual a especificidade, e as respetivas distinções, entre as noções de “reprodução” e a noção de “representação” oscilam numa reversibilidade nocional sistemática. Neste sentido, esta comunicação propõe compreender a maneira como Jacques Rancière formula o conceito de mimeses e a sua implicação nos modos contemporâneos de produção do real através das artes. Esta relação pressupõe o âmbito específico de uma abordagem em torno da função mimética das “imagens”, considerando a afirmação de um modo de representatividade que coincide com uma condição de possibilidade sensível dirigida aos domínios do imaginário.

## Referências / Bibliografia

Rancière, J. (2011). *Aisthesis. Scènes du régime esthétique de l'art*. Paris: Galilée.

- (2000). *Le partage du sensible: Esthétique et politique*. Paris: La Fabrique.
- (2008). *Le spectateur émancipé*. Paris: La Fabrique.
- (2011). *Aisthesis: Scènes du régime esthétique de l'art*. Paris: Galilée.
- (2015). *Le destin des images*. Paris: La Fabrique.
- (2004). *Malaise dans l'esthétique*. Paris: Galilée.

## Sound, Rhythm, and Tapestry: The Aesthetic Convergence of Sound and Image in Portalegre's Contemporary Tapestries

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### Abstract

The interaction between visual art and sound has long been a rich field of exploration, particularly in how rhythm and musicality can be embodied in visual forms. Through the work of artists like Julio Pomar, Eduardo Nery, or Nadir Afonso, whose tapestries incorporate musical themes or vibrant color schemes, this study starts observing how the visual language of Portalegre Tapestry serves as a source of inspiration across different art forms, even extending to the intangible realms of sound and music, and then shows how this visual art works also have generated ideas for the ephemeral forms of sound and music.

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For instance, Eduardo Nery's geometric abstraction frequently evokes a rhythmic pulse, akin to musical beats, where the visual structure seems to vibrate with energy. Nadir Afonso's works, defined by precision and architectural rhythm, explore visual harmony, aligning closely with musical forms in both structure and movement, unfolding a narrative of visual rhythm and the interplay between sound and image. By analyzing their works through the lens of sound, rhythm, and visual composition, this study uncovers how these artists integrate auditory principles into their visual language, transforming their paintings into dynamic, multisensory experiences.

This investigation is further enriched by an interview with pianist Simeon Walker, who drew from Nery's tapestries to compose original music for an interdisciplinary performance. The performance, which combined dance, video mapping, and contemporary music, sought to celebrate the artistic and cultural significance of the Portalegre Tapestries. Interviews with Walker and the other artists involved shed light on how these tactile and visual works sparked an innovative dialogue between sound and image, pushing the boundaries of artistic practice into new sensory realms.

By examining the role of tapestries as an intersection between visual art, music, and sensory experience, this paper contributes to a broader

understanding of the transmedia strategies employed by contemporary artists and the creative potential inherent in the fusion of traditional and modern artistic languages.

**Figure 1.** *Estrutura Ambígua*



Note. Portalegre Tapestry by Eduardo Nery, 2002. Source: Museu da Tapeçaria de Portalegre - Guy-Fino

## References / Bibliography

Fino, V. (2014). *Tapeçarias de Portalegre - Coleção CTT*. In C. Portalegre (Ed.), CTT. Futuro, Lda.

Leandro, S. (2010). *Redes sem mar: 12 tapeçarias da Manufactura de Tapeçarias de Portalegre; 12 fotografias e 1 vídeo da Coleção Millennium bcp; Nets without a sea: 12 tapestries from the Portalegre Tapestry Manufacture; 12 pictures and 1 video of the Millennium bcp collection; Filets sans mer: 12 tapisseries de la Manufacture de Tapisseries de Portalegre; 12 photographies et 1 vidéo de la collection de Millennium bcp. Fundação Millennium BCP.*

Sousa, C. (2025). Weaving music: Music within Portalegre's tapestries. In L. Correia Castilho, R. Sampaio Dias, L. Rocha, & A. de Sousa Dias (Eds.), *Perspectives on music, sound and musicology II* (pp. 131-136). Springer. [https://doi.org/10.1007/978-3-031-67503-4\\_9](https://doi.org/10.1007/978-3-031-67503-4_9)

Tamen, P. (1996). *50 anos de tapeçaria em Portugal: Manufactura de tapeçarias de Portalegre, Lisboa, 26 de setembro, 15 de dezembro* (Centro de Arte Moderna José de Azeredo Perdigão & Fundação Calouste Gulbenkian, Eds.). O Centro.

Walker, S. (2020). *Collected piano pieces*. Independently published.



## Sound Spatialization Approaches as a Performance Tool

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### Abstract

Since the 1950's that Media Art and Music has been using emerging technologies, either in sound installation arts (Cox, 2011 and Nunes, 2025) or, more recently, in live performances, namely with electroacoustic music (Freitas, 2025). In the last years, Media Art and Music has been evolved alongside quick technological advancements such as advanced studio production techniques and crossing devices based on Psychoacoustic-based software, network-based audio platforms or even artificial intelligence (AI) tools (Yarosh,2024).

The aim of this study is to present significative examples that examined, tested, applied and developed creative and technical approaches that using emerging sound spatialization software during the process of pre-production, such as Spat Revolution, provided in different contexts and setups, were capable to replicat similar results in the production step. The main goal is to study and try out different tools of sound technologies applied to substantial repertoire to serve the artistic purpose, enhancing the impact and the immersiveness of the sound experience, creating expanded frameworks based on the score.

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### References / Bibliography

Cox, C. (2011). *Beyond representation and signification: Toward a sonic materialism*. *Journal of visual culture*, 10(2), 145-161. *Journal of Visual Culture*, 10(2), 145–161

Freitas, N. (2025) . Technologies in Live Performance of Classical Music as Resource of Music Mediation

Nunes, C. (2025). A espacialidade Sonora na obra de Bernhard Leitner, 50-52.

Ouzounian, G. (2008). *Sound Art and Spatial Practices: Situating Sound Installation Art Since 1958*, PhD Dissertation.

Yarosh, O. (2024). The influence of modern technologies on creative processing, the sphere of sound art, and sound production.

## Pierre Hébert: Performances e Resistência

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### Resumo

Neste trabalho, proponho explorar as relações entre o cinema de animação e o teatro de marionetas nas performances de Pierre Hébert, bem como a sua possibilidade de resistência à instrumentalização da animação como dispositivo hiper-tecnológico. As marionetas e a animação partilham diversos traços identitários: a presença das artes plásticas, a manipulação do tempo e do espaço, e a ocultação do corpo dos manipuladores. Ambas são "dramaturgias do simulacro" – uma expressão de Hébert para designar a representação de corpos em movimento por algo que não são corpos.

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Se a marioneta se manifesta num "aqui e agora", a animação emerge de um "não-lugar" – como se viesse do outro lado do espelho, à imagem de *Orfeu*, de Cocteau, num tempo sem referência. É precisamente por partilharem o mesmo tempo e o espaço com o público, que surge o carácter imprevisível e subversivo das marionetas. A manipulação das marionetas é feita sempre face à possibilidade de erro, a um movimento esquivo que foge a todas as tentativas de controlo absoluto.

Na animação a reprodutibilidade técnica e o aparato próprio do cinema cria um hiato temporal entre o período de criação e o momento da projeção, o que anula a possibilidade de erro abrindo a possibilidade de controlo ao frame. Os imprevistos próprios do processo de criação acontecem sempre antes da exibição. Por outro lado, a separação dos tempos de criação e exibição impõe a ocultação do corpo do animador. Esta ocultação imposta ao animador distingue-se, segundo Hébert, da ocultação do marionetista que se esconde voluntariamente para criar a ilusão de vida autónoma.

Num mundo globalizado e hiper-tecnológico, onde a virtualização dos corpos ganha cada vez mais espaço e onde os objetos inteligentes adquirem uma aparência de vida, a animação está no centro das mais recentes tecnologias digitais; tornou-se um dos dispositivos fundamentais do que Achille Mbembe se refere como uma era animista.

Animar surge para Pierre Hébert como uma possibilidade de resistência, um modo de reinvenção da imagem animada inutilizável pela mundialização e pelo capitalismo. Ao animar ao vivo frente à audiência nas suas performances Hébert habita o limiar entre o cinema de animação e o teatro de marionetas: ao animar a manipulação dos objetos ao vivo (o gesto próprio das marionetas), introduz o erro e a subversão como parte integrante do dispositivo animado e joga com a redefinição dos limites entre marionetas e animação, abrindo possibilidades de resistência ao mundo contemporâneo das hiper-tecnologias.

## Referências / Bibliografia

Hébert, P. (2006). *Corps, langage, technologie*. Québec: Les 400 coups cinéma.

Hébert, P. (1999). *Ange et l'Automate*. Montréal: Les 400 Coups.

Hébert, P. (2021). *Toucher au cinéma*. Montréal: Éditions Somme Toute.

Mbembe, A. (2020). *Brutalismo*. Lisboa: Antígona

Marcel, Jean (1985) *Pierre Hébert l'homme animé*. Montréal: Les 400 Coups

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### Resumo

*Espaços comestíveis* introduz o contexto em que foi criado o filme *Diz-me quem comes e eu direi-te quem és* (2025) que tem como ponto de partida uma residência artística realizada na associação AAAA em Loulé, no Algarve. *Diz-me quem comes e eu direi-te quem és* (2025) foi realizado numa mina de sal-gema em atividade, situada 230 metros de profundidade e apresenta como processo de trabalho um collage de dois elementos da história da cidade de Loulé que falam de vida, morte, trabalho, medicina e matéria.

Enquadrado no tópico *Creativity in Art & Design: theories, processes and tools*, este artigo pretende apresentar o contexto em que o filme foi desenvolvido. *Espaços comestíveis* revela a importância de um espaço e a sua história associados a elementos teóricos e literários como fontes de alimento que influenciam o processo criativo. Como resultado, *Diz-me quem comes e eu direi-te quem és* (2025) tem uma duração de 20 minutos e tem como objetivo ser difundido tanto em espaços expositivos como em festivais de vídeo e cinema. O artigo *Espaços comestíveis* expõe aqui um exemplo de criação audiovisual produzida por um artista plástico no contexto das artes visuais.

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### Referências / Bibliografia

Sekiguchi, Ryoko (2012), *Manger Fantôme*, Edit. Argol

Fox, Dan (2016), *Limbo*, Fitzcarraldo Editions

Lispector, Clarice (1973), *Água viva*, Edit. Relógio d'Água

Kwon, Miwon (2002), *One Place after Another, Site-Specific Art and Locational Identity*, Massachusetts Institut of Technology

Bennett, Jane (2010), *Vibrant Matter*, Duke University Press

## When Walls Speak Digital: Augmented Reality Meets Urban Art

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### **Abstract**

The integration of digital technologies into artistic practices has evolved alongside the increasing availability of tools and the development of accessible applications. This evolution enables a growing synergy between physical and digital realms, fostering the incorporation of technologies such as augmented reality (AR) into urban art.

This research investigates the intersection of urban art and AR, focusing on the overlay of digital content onto physical artworks. Through an examination of the author's own artistic projects as case studies, this work explores how AR can expand possibilities for artistic expression and redefine audience engagement by transforming urban spaces into immersive, context-sensitive environments. These self-conducted case studies, based on personal creative practices, highlight both the challenges and opportunities in merging AR with urban art, offering first-hand insights into the process of conceptualizing and implementing these hybrid works.

The findings demonstrate how AR can enhance the cultural impact of urban art in several ways, including the documentation and reinterpretation of ephemeral works, extending their longevity and relevance. Additionally, AR provides a sustainable approach to creative practices by reducing the need for permanent alterations to spaces and enabling dynamic, adaptable digital interventions. These interventions open new possibilities for audience interaction, fostering deeper connections between the artwork, its environment, and its viewers.

By leveraging AR and related technologies, this research challenges traditional notions of artistic permanence and sustainability. It proposes a more fluid, innovative relationship between creation, space, and audience interaction, grounded in the author's experiences as both practitioner and researcher.

The driving question behind this research — and our future explorations — is to understand how technology can be employed in innovative and meaningful ways to intersect with artistic practices, opening up new horizons for creation and aesthetic experience.

## References / Bibliography

Geroimenko, V. (Ed.). (2022). *Augmented reality art: From an emerging technology to a novel creative medium* (3rd ed.). Springer.

Gwilt, I. (2018). AR graffiti and street art. In V. Geroimenko (Ed.), *Augmented reality art*. Springer. Riggle, N. A. (2010). Street art: The transfiguration of the commonplaces. *The Journal of Aesthetics and Art Criticism*, 68(3), 243–257. <https://www.jstor.org/stable/40793266>

Silva, M., Morais, D., Mazedo, M., & Teixeira, L. (2019). Combining augmented reality with graffiti using mobile application: First results. In *Proceedings of the Creative Industries Global Conference 2019* (pp. 76–79). Fundación Iberoamericana de las Industrias Culturales y Creativas. <http://hdl.handle.net/10400.14/28525>

Sullivan, G. (2010). *Art practice as research: Inquiry in visual arts* (2nd ed.). SAGE Publications.

## Fotografia Digital na Média-Arte: Criatividade, Tecnologia e Novos Paradigmas Visuais

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### Resumo

A fotografia digital tem transformado profundamente a criação artística, proporcionando ferramentas inovadoras para a captação, manipulação e difusão de imagens (Osborne, P. D., 2018). O seu impacto vai além da mera evolução técnica, influenciando significativamente a narrativa visual, a democratização da produção artística e a interseção entre arte, tecnologia e sociedade.

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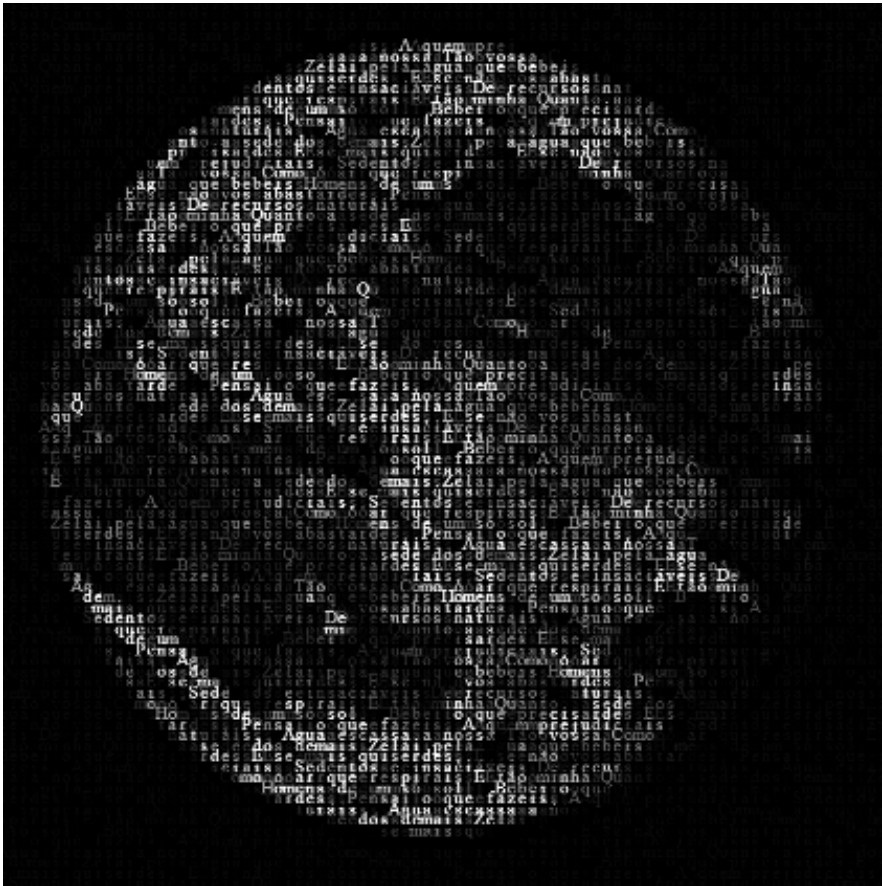
Este artigo analisa os vetores dinâmicos que sustentam a influência da fotografia digital na arte contemporânea, explorando a relação entre estética, técnica e tecnologia no contexto da média-arte digital (Alves da Veiga, et al, 2023). Através de uma revisão teórica e da análise crítica de boas práticas e ferramentas digitais, pretende-se compreender como a fotografia digital amplifica as possibilidades criativas, permitindo a adaptação de técnicas clássicas a abordagens contemporâneas e fomentando práticas híbridas que integram instalação, performance e arte generativa. Métodos de registo e investigação direcionados à criação e prática artística em média-arte digital, como a a/r/cografia e dos diários digitais de bordo (Alves da Veiga, 2021), aplicação à fotografia digital, como a criação de artefactos visuais experimentais pós-fotográficos (Ligarretto Feo, 2024).

Além disso, discute-se o papel da fotografia como meio de reflexão crítica e ativismo social, evidenciando a sua capacidade de documentar e problematizar desafios ambientais, políticos e culturais. É exemplo o projeto de arte generativa “Terra” – Figura 1. O impacto da inteligência artificial e das novas tecnologias na manipulação da imagem também é abordado, considerando a emergência de novos paradigmas na criação

e no consumo de arte digital. Considera-se também a análise sobre o impacto no setor da produção de conteúdos audiovisuais em Portugal, com efeito no impacto das Indústrias Culturais e Criativas (ICC) (Cortez & Teixeira, 2021).

O estudo contribui para a compreensão do potencial da fotografia digital na construção de discursos visuais inovadores, reforçando a sua relevância na interseção entre criatividade, tecnologia e sociedade no panorama artístico atual.

**Figura 1.** Terra



*Nota.* Projeto de arte generativa, 2021.



## Referências / Bibliografia

Alves da Veiga, P. (2021). Método e registo: uma proposta de utilização da a/r/cografia e dos diários digitais de bordo para a investigação centrada em criação e prática artística em média-arte digital. *Rotura – Revista De Comunicação, Cultura E Artes*, (2), 16-24. <https://doi.org/10.34623/y2yd-0x57>

Alves da Veiga, P., Bidarra, J., & Araújo, A. (2023). Média-Arte Digital – Ampliando Conceitos. *Rotura – Revista De Comunicação, Cultura E Artes*, 3(1), 8-11. <https://doi.org/10.34623/c9rh-c987>

Cortez, M. R., & Teixeira, L. (2021). Desafios do setor da produção de conteúdos audiovisuais em Portugal. Em J. Sierra Sánchez, & J. Gomes Pinto (Eds.), *Audiovisual e indústrias criativas: presente e futuro* (Vol. 2, pp. 333-346). McGraw-Hill Interamericana de España.

Ligarretto Feo, R. (2024). Média-Arte Digital: Criação de artefactos visuais experimentais pós-fotográficos. *Rotura – Revista De Comunicação, Cultura E Artes*, 4(1), 140-155.

Osborne, P. D. (2018). *Photography and the Contemporary Cultural Condition: Commemorating the Present* (1ª ed.). Routledge. ISBN 9780367589103.

## **Proximação: a Apresentação de uma Performance Interativa como Diluição das Fronteiras entre Arte e Vida**

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### **Resumo**

Analisamos de que forma a arte presentativa – que significa “o que é, o que pode ser e o que se está a tornar” (Alexenberg, 2006, p. 45) – constitui, através da performance mediada por um sistema de Mapeamento Dinâmico de Vídeo, uma ação direta e emancipatória para o espectador (Rancière, 2008/2022), diluindo as formalizações convencionais da trian-gulação performer-sistema-espectador numa configuração intermedial.

Este sistema artístico consiste e decorre da hibridação dos meios, recorrendo a tecnologias de Mapeamento Dinâmico de Vídeo ao utilizar programação original em Python, a par com o software TouchDesigner e o framework de Percepção Computacional MediaPipe numa instalação com projecção de vídeo e som.

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Neste sentido, o projeto artístico “Proximação” questiona o papel dos elementos constituintes da performance e propõe o conceito de autoexomático, que se traduz na possibilidade do objeto técnico (Simondon, 2018; Martins, 2012) passar do automático para um lugar ativo na construção contínua do processo-objeto (Metelo, 2023) ao mesmo nível hierárquico dos espectadores e performers.

**Figura 1.** *Proximação*



*Nota.* Performance mediada por sistema de Mapeamento Dinâmico de Vídeo, 2024.

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## Referências / Bibliografia

Alexenberg, M. L. (2006). *Semiotic Perspectives - Redefining Art in a Digital Age*. In *The future of art in a digital age: from Hellenistic to Hebraic consciousness* (pp. 33–64). Bristol, UK: Intellect.

Martins, H. (2011). *O Deus dos Artefactos: O Princípio de Vico e a Tecnologia*. In *Experimentum humanum: civilização tecnológica e condição humana* (pp. 70–105). Relógio D'Água.

Metelo, V. G. (2023). *A Experiência Estética e Profundidade do Mundo* (Universidade de Coimbra, Coimbra, Portugal). Retrieved from <https://hdl.handle.net/10316/114211>

Rancière, J. (2022). *O Espectador Emancipado* (2nd ed.; J. Miranda Justo, Trans.). Lisboa: Orfeu Negro. (Original work published 2008)

Simondon, G. (2018). *Do modo de existência dos objetos técnicos: introdução* (J. V. Jorge, Trans.). *Laboreal*, 14(1). doi:10.4000/laboreal.546 (Original work published 1969)

## Immersive Storytelling: Exploring the Intersection of Spatial Audio and Live Theatre

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### Resumo

The quest for immersive audio experiences has led to the development of innovative technologies that can transport audiences into the midst of a scene. One such technology is Ambisonics (Gerzon & Barton, 1984, Zotter & Frank, 2019), a unique framework that captures and reproduces sound in three-dimensional space. This paper presents a case study on the application of Ambisonics in live theatre, exploring its potential to enhance the audience's immersive experience.

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Ambisonics is an immersive audio technology originally developed in the early 1970s at the University of Oxford by Michael Gerzon, Peter Felgett and Geoffrey Barton. It introduces the concept of soundfield to replicate a complete soundscape as a human body would perceive it in context. Contrary to other spatial audio technologies such as channel-based (5.1 for example) or object-based (Dolby Atmos), Ambisonics is able to capture and reconstitute a soundscape and remain independent to the number of speakers available. It accurately represents the spatial relationships between sounds, creating a more realistic and engaging experience for the audience.

We present the first production in Asia incorporating the OTTOsonics playback system (Mitterhuber, 2024), which is a multi-channel sound system for immersive audio experience, a groundbreaking technology developed in partnership between two international institutions. Produced by the "Theatre Company", this live production, "ChongChong's Hamster", is a poignant and visually stunning theatrical experience that combines puppetry, visual storytelling, and immersive Ambisonics sound technology. Our team played a crucial role in the production, providing the technology with a 24-channels OTTOsonics playback system, as well as worked on all sonic production, including: Sound Design, pre-recorded voices and music spatialization (5th order Ambisonics) and live performance spatialization.

The paper explores the technical and artistic aspects of integrating OTTOsonics in a theatrical production, highlighting its potential to enhance the audience's immersive experience. The show was hosted 5 times in 3 days with more than 50 audiences each show, receiving overwhelmingly positive feedback from the audience and praising the impact of our sound spatialization on their experience. This case study demonstrates the power of collaboration between artists, technologists, and institutions in pushing the boundaries of what is possible in immersive audio experiences.

**Figure 1.** Picture from the ChongChong's Hamster show.



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## References / Bibliography

Mitterhuber, M. (2024, February 29). *OTTOsonics—Spatial audio as the new normal | Sounding Future*. <https://www.soundingfuture.com/en/article/ottosonics-spatial-audio-new-normal>

Gerzon, M. A., & Barton, G. J. (1984, May 1). *Ambisonic Surround-Sound Mixing for Multitrack Studios*. Audio Engineering Society Conference: 2nd International Conference: The Art and Technology of Recording. <https://www.aes.org/e-lib/browse.cfm?elib=11654>

Zotter, F., & Frank, M. (2019). *Ambisonics: A Practical 3D Audio Theory for Recording, Studio Production, Sound Reinforcement, and Virtual Reality*. Springer Nature. <https://directory.doabooks.org/handle/20.500.12854/30072>

## Do and Understand: Rethinking the Impact of Participation Via Physical and Digital Mediums

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### Abstract

*The Willow Community Archive*, a collaborative project between Professor Rachel Cowgill from StreetLife York (n.d.) and David Thomas and Vicki Fong cofounders of ThomFong. Funded by the University of York, the collaboration commenced in 2022 and is ongoing to this day. It creatively delivers digital and physical experiences to engage audiences of all ages:

**Stage 1:** *The Willow Digital Online Archive*

**Stage 2:** *The Willow Archive Educational Workshops*

**Stage 3:** *The Willow Experience : An Immersive Exhibition*

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We worked on a project that introduces the concept of archiving to the general public as an important part of collating and conserving a community's history (Cowgill et al., 2024).

Stage 1: *The Willow Digital Online Archive*. This celebrates the history of a location and its communities, using film to encapsulate memories to be stored and viewed in an online public digital archive. Six visually rich and informative films that narrate highlights from the 42 year history of the Willow Chinese Restaurant and Disco in York, United Kingdom. Oral histories from some of the family members who built it, the friendships that were formed, and the safe place it became for communities. The Willow held an iconic status among those that frequented there, and at the time of its closure The Guardian newspaper commemorated the business in the article *Farewell, The Willow — the Berghain of York* (Finan, 2015).

Stage 2: *The Willow Archive Educational Workshops*. Creative workshops for children that introduces messages of migration, tenacity, creativity, unity and fun. In 2024, StreetLife York and ThomFong piloted ideas in person through interactive presentations and creative art and music workshops to Manston St James Primary School, Leeds, UK, in collaboration with two Chinese students from the University of York MA Community Music course. ThomFong have used the insights gained from the in person workshops to shape a blueprint plan for developing digital workshop resources, which includes interactive workshops, teacher's guides, curriculum mapping and introductions to creative tools such as musical instruments and recording devices. The aim is to empower classrooms in learning about archives, history and culture, and have young people value their own experiences with the objective to create their own digital archives containing images, video and sound.

Stage 3: *The Willow Experience: An Immersive Exhibition*. Scheduled for June 2025, this physical immersive exhibition will be delivered during the York Festival of Ideas. It provides a space for audiences to challenge their own perceptions of what an archive is and how it can be used. Offering visitors to use their five senses of touch, sight, hearing, smell and taste to engage in the Willow experience!

The *Willow Community Archive* is a collaboration between StreetLife York and ThomFong that promotes:

Cultural difference and similarity

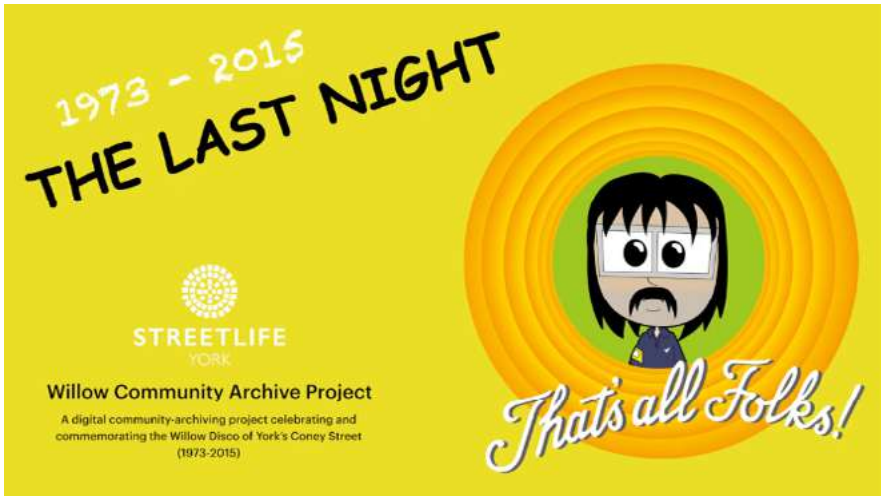
The importance of one's history and preserving data/artefacts connected to it

The importance of development via passion for subject matter

The role of music as a universal language

The role of design as a vehicle for self-expression.

**Figure 1.** *The Willow Community Archive Project - The Last Night Archive Film Cover*



## References / Bibliography

Cowgill, R., Bainbridge, D., Dix, A., Hoyle, V., Fong, V., & Thomas, D. (2024). (Re)capturing the Emotional Geography of Lost Music Venues: A Case Study of the Willow Community Digital Archive. *ACM International Conference Proceeding Series*, 23–31. <https://doi.org/10.1145/3660570.3660579>

Finan, V. (2015). Farewell, The Willow — the Berghain of York. *The Guardian*. <https://www.theguardian.com/uk-news/the-northerner/2015/jul/28/farewell-the-willow-the-berghain-of-york>

*StreetLife York*. (n.d.). Retrieved February 25, 2025, from <https://www.streetlifeyork.uk/about>



## Another Gaze on Voice

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### Abstract

Voice in academy has long been trapped in semantics. To embrace the relationality of voice and how it can support contemporary struggles, I propose to approach it first and foremost as a sound. Voice as a sound is a vibration that reaches out to the other person. To help me explore this perspective, I will bring to the table the work of three sound practitioners, who critically reflect on what it is that sound does. I will take a voice-based project I am currently implementing in the districts of Luxemburg city as a concrete example for this discussion.

What would you say about your neighborhood to someone passing by for the first time? This question was the basis of a project developed between June and October 2024, in which volunteers of all ages shared their experiences about the neighborhood where they live, in the city of Luxembourg. This sound project, launched by the Luxembourg capital, aimed to delve into the reality of its 24 neighborhoods. Among other means, the city privileged sound as a sensitive tool, that relates us to the unseen and not represented. The conversations were recorded and placed on the map of the district where they were produced. The visual montage of these voices documents the acoustic space of the territory and has a symbolic impact: it unites experiences and seeks echoes between them.

Labelle (2020) puts forward sound and listening as emancipatory practices. When we listen, we pause, we pay attention to what is around, and what is being said, it is thus a gesture that nurtures a larger narrative than what happens “on the visual surface of particular worlds” (p.3). Beyond appearances, sound seems to have the ability to bring us together around shared experiences. Voice and by extension conversation, as a sonic experience, exceed the “strictly verbal and visible”. They inform a dynamic acoustical framework that disrupt and reorient the politics of visibility.

One important aspect of the Luxemburg project is that I recorded the residents in their native language. Hearing the diversity of languages of

each district contributes to shape urban soundscape, as participatory, alive, always changing. Musician and academic Ouzounian (2024) points out the dynamics of power at work in the way we produce and listen sounds. She relevantly questions how this “vibrational territory” is regulated and managed.

For sound practitioner Deshays (2023), the vibration of voice is what we like when we listen or take part in a conversation. It informs a both extremely fragile and powerful zone of contact that is at the core of the act of saying and listening. It thus seems that the exchange of sonic energy is at least as important as the circulation of ideas.

By taking voice as a sound, and with the help of three authors, I emphasized its capacity of connecting around deep matters, its highly intimate dimension as well as the complexity of urban soundscape. Conversations are hereby celebrated as a transformative and inclusive tool to support contemporary struggles.

## Acknowledgment

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I would like to express my gratitude to The City of Luxembourg, the Urban Planning Department, and the Surveying and Geomatics Department, for their support and close collaboration, enabling a sound contribution to the project “Luxembourg City’s 24 districts”.

## References / Bibliography

Deshays, D. (2023). *Libertés d’écoute: Le son, véhicule de la relation*. MF.

Labelle, B. (2020). *Sonic Agency: Sound and Emergent Forms of Resistance*. MIT Press.

Ouzounian, G. In conversation with Abdukhalikova, K. (2024). *Counterlistening the city, Pansori: A Soundscape of the 21st Century*. 15th Gwangju Biennale Catalog.

## Three Disrupting Voices in Sound Studies: Deshays, Chattopadhyay and Ouzounian

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### Abstract

Deshays, Chattopadhyay and Ouzounian have in common an extensive body of work in the realm of Sound Studies, grounded in a personal approach, and a critical position towards established western-biased, anthropocentric Sound Studies.

Deshays, Chattopadhyay and Ouzounian have different backgrounds. They operate on the side of the field, aware of the dominant, objectifying, music-referenced approaches, and looking for undisciplined, not result-orientated, horizontal, free approach of sound.

Their starting point is the seminal work of Canadian composer R. Murray Schafer, who founded *The World Soundscape* Project in late 1960s. Schafer conceptualized the term “soundscape” as a composition made of identifiable sounds. He is considered as the pioneer of acoustic ecology. Schafer popularized the idea of a natural sonic tuning of the world. This theory has been challenged in the last 20 years for being rooted in an antique, biased, vision of the world.

I will briefly present Deshays, Chattopadhyay and Ouzounian, and for each piece I have selected, I will present their position and their path of arguments to tackle the still referential notion of soundscape. I will show how their singular approaches and experiences in sonic material contribute to destabilize, complexify it, and open other perceptions and possibilities. I will then discuss resonances between these three subjective voices in the field. The contribution of this paper is to make audible other voices, evolving on the realm of the sensible, intersubjectivities, and how they manage to bring to the table of Sound studies a political dimension.

## References / Bibliography

Chattopadhyay, B. (2023-2024). *Co-sounding: towards a sonorous land. Venue and Essay for Polyphonic landscapes*. Zone2Source, Amsterdam.

Deshays, D. (2023). *Libertés d'écoute: le son, véhicule de la relation*. MF.

Ouzounian, G. In conversation with Abdukhalikova, K. (2024). Counterlistening the city, Pansori: a soundscape of the 21st century. 15th Gwangju Biennale Catalog.

Schafer, R. M. (1993). *The soundscape: our sonic environment and the tuning of the world*. Destiny Books.

## **Being Touched – The Experience of Sound and Image: The Challenges of Innovation and Sustainability in Art & Design**

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### **Abstract**

The capacity to put into action the full potential of human spontaneity and creativity has been a long-standing drive for the development of civilizations across the history of humankind. The experience of sound and image, which digital media explores until it reaches saturation levels, is itself a reflection of contemporary societies' challenges. Political thought has explored the seducing mechanisms of idealisation and of abstraction, discursively creating a modus vivendi that risks eliminating the possibility of life on the planet. Ecological and social dimensions of present time pluri-crises include climate change, loss of biodiversity, escalating economic inequalities, migrant crisis, loss of democratic power in democracies and raise of non-democratic regimes. Sound and image are the medium through which new and old media vehiculate a consumerist and alienating message. Nevertheless, it is precisely by exploring the full potential of these stimuli of human emotions, sentiments and affects that it is possible to envision an alternative possible future. Radically new approaches and illuminating explorations are already available in contemporary societies, mainly performed by active militant research and social movements, often unaware of the beacon of hope that they represent to humankind and to the survival of life in the long run. The question that is raised for Art & Design is to identify, acknowledge, recognise and cherish the potential that is already available when the right conditions for the emergence of a safe space for creation are enabled. Examples of transnational movements that are setting new standards, even if through frail institutional settings, include civic movements like Degrowth, MAD Africa, Transition Network DiEM25 and Ecovillages Network. If art is considered as the human activity able to reinterpret reality and produce

artefacts that capture and enhance the experience of existence, offering radically new alternatives and pathways, thus producing new possibilities at all levels of society, then this art is itself an example of highest political quest. Several authors have explored this relation between art and political reality, understood as the search for the common good. Archetypical and symbolic interpretations have helped to dismount the mythic side of technoscience and to re-signify the importance of socio-technical systems. Driving logos and myth as inherently interconnected introduces disturbing and disruptive perspectives. Both art and design capture this movement through dissonant disquietness that simultaneously offers new grounds to be explored, in theory and in practice. Denouncing a dystopian reality is also a form of announcing new utopias. The access to minimum levels of literacy in psychopathology can help to explain the cognitive-emotional saturation of all senses that leads to apathy and blocks creativity, whilst this same knowledge can produce disruptive thought and action, protecting and caring for the necessary conditions that may enable transformative experiences. Exercising social regulation and control implies denying emancipatory agency on behalf of citizens, which can be inverted by using the mechanisms of artistic production as an explorative safe way. Sound and image, through Art & Design scholarship, are already present in contemporary thought. Innovation for sustainability is itself a challenge that invites open reflexion, productive critique and the creation of safe spaces for fertile debate.

## References / Bibliography

Arendt, H. (2017). *The origins of totalitarianism*. Penguin.

Belo, S. (2022). Between Mask and Uniform: The Undecidability of Mimesis. *CounterText*, 8(1), 149-176.

Bertmark, A. (2022). Consuming new narratives: Second-order design fictions as transition objects for planet-centric consumption habits. *DISCERN: International Journal of Design for Social Change, Sustainable Innovation and Entrepreneurship*, 3(1), 1-16.

Lacoue-Labarthe, P., Nancy, J. L., & Holmes, B. (1990). The nazi myth. *Critical inquiry*, 16(2), 291-312.

Matos Dias Caldeira Cabral, I. (1990). Maurice Merleau-Ponty's Logic of Ambiguity. In *Man's Self-Interpretation-in-Existence: Phenomenology and Philosophy of Life Introducing the Spanish Perspective* (pp. 323-337). Dordrecht: Springer Netherlands.

## Symbiophone – Interfaces for Unherad Communications

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### Abstract

Departing from considerations on the meaning of existing in permanent symbiosis, the present investigation combines microbiology and acoustics through an artistic practice to analyze the effects of sound stimuli on the mycelium.

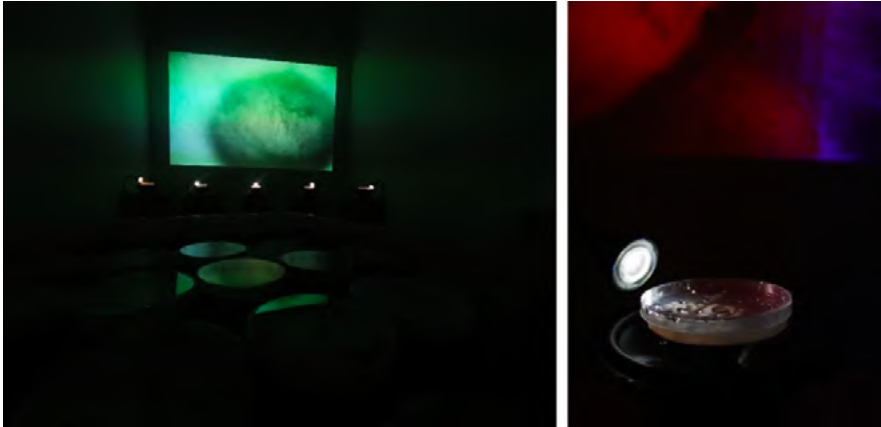
Given fungi's ability to perceive environmental stimuli, including sound induced vibrations (Kobayashi et al., 2023; Roberts & Adamatzky, 2022), this research questions how human generated sounds impact mycelium. Fungi establish mycorrhizal networks, an intricate communication system formed by the interweaving of mycelium with different plants and trees (Dey, et al., 1996), linking entire forests. These networks foster interspecies communication and represent a crucial model of symbiosis.

Therefore, this research emerges from three main questions: Do human derived sounds affect the mycelium growth? Can noise pollution from highways, factories or busy areas affect mycelium, hence affect the forest ecosystem? Is it possible to observe a response to distinct sound frequencies visible on the growth pattern of the mycelium? The first endeavor into set research focuses on the last question, examining the effects of specific sound frequencies on mycelium as an interspecies communication case study.

For doing so, it is developed a bio-art installation entitled Symbiophone. Symbiophone creates a possible path to uncover hidden dialogs in which humans unknowingly engage and bridge distinct ways of perceiving. It aims to open space for reflection on overlooked agents, offering a glimpse into other-than-human communication systems and upon manifestations of existing in symbiosis.

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**Figure 1.** *Symbiophone installation*



## References / Bibliography

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Das, S., & Sarkar, S. (2024). Arbuscular mycorrhizal fungal contribution towards plant resilience to drought conditions. In *Frontiers in Fungal Biology*, 5. Frontiers Media SA. <https://doi.org/10.3389/ffunb.2024.1355999>

Jeong, M.-J., Bae, D., Bae, H., Lee, S. I., Kim, J. A., Shin, S. C., Park, S. H., & Park, S.- C. (2013). Inhibition of *Botrytis cinerea* spore germination and mycelia growth by frequency-specific sound. In *Journal of the Korean Society for Applied Biological Chemistry*. 56(4), 377–382. Springer Science and Business Media LLC. National Institute of Agricultural Sciences. <https://doi.org/10.1007/s13765-013-3088-7>

Kobayashi, C., Mukai, H., & Takanashi, T. (2023). Vibrations and mushrooms: Do environmental vibrations promote fungal growth and fruit body formation? In *Ecology* 104(6). Wiley. <https://doi.org/10.1002/ecy.4048>

Robinson, J. M., Cando-Dumancela, C., & Breed, M. F. (2024). *Sonic restoration: Acoustic stimulation enhances soil fungal biomass and activity of plant growth promoting fungi*. Cold Spring Harbor Laboratory. <https://doi.org/10.1101/2024.01.11.575298>

Schurbert, T. (2020). *Sound for Fungi. Homage to Indeterminacy*. In Meyer, V. & Rapp, R. (Eds.), *Mind the fungi* (pp.72–79). The institutional repository of the Technische Universität Berlin. <http://dx.doi.org/10.14279/depositonce-10350>



## Felix - The Cat - e a Música Contemporânea

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### Abstract

Neste artigo apresenta-se uma experiência artística no decurso da elaboração de dois projetos de composição sonoro-musical, *Felix*, *April Maze* e *Feline Follies*, no âmbito de uma investigação sobre educação e contemporaneidade musical. Os projetos, baseados na sonorização de dois filmes de animação de 1930 e 1919, do cartoonista Patrick Sullivan, foram elaborados por estudantes do Curso de Licenciatura em Educação Artística e do Curso de Licenciatura em Educação Básica, de uma Instituição de Ensino Superior Portuguesa, e emergiram do conhecimento aplicado sobre a música contemporânea e da utilização de tecnologia digital, essencialmente gravadores áudio e *software* de edição/composição. Com a utilização deste tipo de recursos pretendeu-se trabalhar os princípios da música eletroacústica, gravando sons, misturando e explorando novas sonoridades digitais em conjunto com sonoridades acústicas. Abraçando premissas da música contemporânea de exploração/experimentação sonora e procura de novas sonoridades, foi possível conduzir esta tipologia musical para a educação musical e, conseqüentemente, para a construção sonoro-criativa. Os trabalhos de criação musical foram elaborados pelos formandos, em sala de aula, e orientados pela docente e investigadora.

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## Referências / Bibliografia

Antão, R. (2021). *Eufónio e Eletrónica: desafios técnico-interpretativos da música mista* [Tese de doutoramento. Universidade de Évora]. <https://dspace.uevora.pt/rdpc/handle/10174/30747>.

Cádiz, R. (2003). Estrategias Auditivas, Perceptuales y Analíticas en la Música Electroacústica. Resonancias. *Revista de Investigação Musical*, 13, 47-66. <https://doi.org/10.7764/res.2003.13.5>

Kennedy, M., Kennedy, J. & Rutherford-Johnson, T. (2013). *The Oxford Dictionary of Music* (6.a ed.). Oxford University Press.

Kropfl, F. (1997). Une approche de l'analyse de la musique electroacoustique. In F. Barrière & G. Bennett. *Analyse en Musique Electroacoustique, Actes II de travaux 1996 de l'Académie Internationale de Musique Electroacoustique*. Editions MNEMOSYNE (pp. 130-135).

Lopes, I. R. (2021). *Música eletroacústica e mista em Portugal – séculos XX e XXI – do contexto à análise de K-U-L-T de Luís Antunes Pena e Mosaïc de João Pedro Oliveira* [Dissertação de mestrado. ESMAE - Instituto Politécnico do Porto]. <https://recipp.ipp.pt/handle/10400.22/17186>.

Moore, R. (1992). A Technological Approach to Music. In J. Paynter, T. Howell, R. Orton, & P. Seymour. *Companion to Contemporary Musical Thought*, Routledge, vol. 1 (pp.329-354).

## Subverting TikTok and Mass Media in Education: Leveraging Digital Media for Engaging Classroom Presentations and Innovating Pedagogical Strategies

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### Abstract

The rise of TikTok as one of the leading social media platforms has transformed digital communication and reshaped how young audiences consume and create content. This text explores how TikTok's unique formats and features can enhance classroom presentations, focusing on how students and teachers can leverage this mass medium for educational purposes. By examining key design elements of TikTok—such as brevity, visual storytelling, and viral trends—the text proposes a framework for integrating mass media subversion into educational practices, fostering creativity, engagement, and critical media literacy.

TikTok formats and mass media, while often associated with misinformation and shallow learning, also present opportunities for critical awareness. By integrating these tools into classroom scenarios, students can analyze algorithms, biases, and manipulation techniques while developing essential media literacy skills such as fact-checking and content creation.

What is a TikTok format? The TikTok content format is designed to quickly engage viewers and encourage interaction. Videos are short (15 seconds to 3 minutes), vertical (9:16), and often feature trending sounds or songs. Key elements include fast-paced editing, captions, visual effects, and collaborative features like Duets or Stitch. Authenticity is central, with casual, relatable, and lo-fi aesthetics driving engagement. Popular formats include dances, skits, tutorials, reactions, and storytelling (often divided into parts). Viral hashtag challenges and seamless video loops boost discoverability and watch time. Educational “edutainment” content is also on the rise, making TikTok a dynamic platform for creativity and community building.

In a recent course implementation at the University of Évora, School of Arts in Technologies of New Media II & III in 2024 and 2025, TikTok formats were introduced for a presentation assignment. This encouraged students

to distill complex ideas into concise, engaging narratives by subverting the mass medium. The approach aligned with contemporary digital literacy skills and provided students with insights into the media they consume daily, empowering them to navigate and utilize these platforms effectively. Student feedback highlighted increased motivation, enjoyment, and a sense of agency in their learning process.

Although this is based on the implementation of two courses rather than extensive research, the positive responses underscore the potential of using TikTok and other mass media as educational tools to bring playfulness into learning. These experiences emphasize the importance of adapting pedagogical methods to engage a digitally native generation and prepare them for the complexities of media consumption and creation. In conclusion, subverting mass media tools like TikTok for educational purposes can foster dynamic, enjoyable learning environments while encouraging students to engage critically and creatively with digital media.

## References / Bibliography

76

Gee, J. P. (2014). *How to do discourse analysis: A toolkit*. Routledge.

Kearney, M., & Schuck, S. (2006). *Exploring the impact of mobile technologies on student engagement*. *Journal of Educational Technology & Society*, 9(2), 1-12.

Prensky, M. (2001). *Digital natives, digital immigrants*. *On the Horizon*, 9(5), 1-6.

Sefton-Green, J. (2013). *Digital media and learning: A new agenda for education*. *Learning, Media and Technology*, 38(1), 1-10.

Selwyn, N. (2016). *Education and technology: Key issues and debates*. Bloomsbury Publishing.

## **30×N: Composing for the modular, unrepeatably, and irreducible**

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### **Abstract**

This paper discusses the composition strategies developed for an audiovisual stage performance created for three performers and three computers, amplified sound, video projection and lighting system. In this performance, each human-computer pair is an agent that collaborates with the remaining two pairs by producing sonic or visual outputs. The conceptual strategies set in motion foster the development of audio-visuality through: 1 simultaneous but independent production of sonic objects and visual elements; 2 coexistence of these sonic objects and visual elements in a context that favours synchresis and the audience's active exploration of a dense and multifocal gestalt. The performance's system is based on modular structures and is intentionally designed to sidestep loop-based approaches to performance, minimising repetition at any level. Furthermore, the piece promotes the agency of the computational objects — computers and software — and consequently requires human performers to continuously deal with that agency in negotiating the development of the performance in real-time. This is compounded by the choice to not technically synchronise the production of sonic and visual elements and forcing negotiation to be developed at multiple levels: each human negotiates with its computational pair while, as a human-computer pair they dialogue with the others throughout the development of the performance. As such, this performance is born of a continuous debate between computational agents that are able to make pivotal decisions for its development, the humans that collaborate with them, and the tensions between all of these, leading to an exploration of the poetics of instability, irreducibility and fragility in computational performing arts.

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**Figure 1.** Photography of a 30xN performance



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## References / Bibliography

Carvalho, M. (2024). ..., magia, ritual, techné, subjetividade. *Interact, Revista Online de Arte, Cultura e Tecnologia* (39-40). <https://revistainteract.pt/39-40/magia-ritual-techne-subjetividade/>

Diederichsen, D., & Raffeiner, A. (Eds.). (2022). *Artificial Music. Haus der Kulturen der Welt.*

Galloway, A. R. (2021). *Uncomputable: Play and Politics in the Long Digital Age.* Verso.

Gibson, S., Arizona, S., Leishman, D., & Tanaka, A. (Eds.). (2023). *Live Visuals, Theory, Practice.* Routledge.

Roddy, S. (2023). Creative Human-Machine Collaboration: Toward a Cybernetic Approach to Artificial Intelligence and Machine Learning Techniques in the Creative Arts. In M. Filimowicz (Ed.), *AI and the Future of Creative Work.* Routledge. <https://doi.org/10.4324/9781003299875>

# The Materiality of Sound and Image in Interactive Digital Narratives: A Dynamic Feature of the Aesthetics of Behavior

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## Abstract

Interactive Digital Narratives (IDNs) arise from the interplay between humans and machines, creating a collaborative relationship between software operations and mediated socio-cultural contexts. They are fundamentally rooted in the material and social underpinnings of computing, where code, algorithms, and human bodies are interconnected as relational objects endowed with performative agency, existing inextricably tied to cognitive and embodied processes.

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IDNs are multimodal, and elements such as sound and image serve a dual role within, functioning simultaneously as subjects that convey meaning and as objects that are deeply embedded within the operational processes of the computational system. These elements are shaped by the algorithmic structures underpinning the narrative experience, contributing to constructing a mediated reality that emerges through this interplay. Exerting an influence on the narrative by determining the conditions under which certain sounds or visuals are layered and transformed, algorithmic structures allow the narrative to adapt to readers' inputs, creating a feedback loop where the multimedia elements respond to and influence their experience and interpretation.

This paper examines how the interaction with auditory and visual elements involves the perception of an environment through action, becoming a sensorimotor experience among readers, digital devices, and computational processes. When sound and imagery are carefully crafted and synchronized, they transform into affective tools that guide readers' attention, provoke emotional responses, and enhance narrative coherence.

By understanding the materiality of sound and image in IDNs, we will approach how these elements are enmeshed with the operational logic and playable model, their representations, and the code itself. Our analysis will center on two case studies: *What Remains of Edith Finch* (2017) and *Everything* (2017). These works demonstrate dynamic soundscapes that respond to readers' choices and visual components that evolve as the narrative unfolds. We will investigate how meaning arises from readers' physical interaction, thought, and perception alongside the mechanical and narrative constraints simulated by the system, in which the relation between sound and image plays a vital role. We will focus on how the arrangement and design of spaces, objects, and environmental storytelling elements create a narrative without direct textual or mechanical interaction, turning visual and auditory into material objects that can tell and reflect stories, move readers, and allow for immersive imagination.

Moving between the computational and representational approaches, we explore IDNs as interactive systems promoting symbiotic relationships involving the reader's body and its sensual capacities in the way they assemble narrative, contributing to an affective experience.

## References / Bibliography

Anable, A. (2018). *Playing with feelings: Video games and affect*. U of Minnesota Press.

Chion, M. (2019). *Audio-vision: Sound and Screen*. Columbia University Press

Jayemanne, D. (2017). *Performativity in art, literature, and videogames*. Springer.

Munster, A. (2011). *Materializing new media: Embodiment in information aesthetics*. UPNE.

Stenros, J., & Montola, M. (2024). *The Rule Book: The Building Blocks of Games*. MIT Press.



## **Narrativas Transmídia, Realidade Aumentada e Portais Narrativos: Uma Estratégia para a Valorização do Património Cultural**

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### **Abstract**

A era digital tem vindo a redefinir a forma como as comunidades experienciam, preservam e interagem com o seu património cultural, abrindo caminho para novas estratégias de valorização. Esta investigação explora como as Narrativas Transmídia (NT) e a Realidade Aumentada (RA) podem contribuir para a construção de Portais Narrativos (PN), explorando o seu impacto como mediadores entre comunidades e espaços culturais.

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A comunicação foca-se na base teórica do projeto “*Anamnese, in Nexum*”, justificando a relevância da tríade NT-RA-PN na criação de ecossistemas narrativos híbridos – ecossistemas que unem o tangível-físico e o intangível-digital. A revisão da literatura contextualiza o papel das NT na construção de narrativas expandidas e na cocriatividade (Jenkins, 2006), enquanto a RA permite a sobreposição de camadas digitais ao espaço físico, criando novas formas de fruição patrimonial (Geroimenko, 2018). Esta análise é complementada pela perspectiva de Csikszentmihalyi (2008) relativamente ao impacto das experiências imersivas no envolvimento do público e de Manovich (2002) sobre a transformação dos media digitais.

A investigação teórica é complementada por uma abordagem prática, sustentada pela metodologia a/r/cográfica e pelo estudo de caso, refletidos no trabalho exposto no 11o Retiro em Média Arte Digital pela Universidade Aberta e Universidade do Algarve – Exposição Circuitos 2024 – com o mesmo nome “*Anamnese, In Nexum*”. Este utiliza o caso estudo da vila da Golegã (espaço e comunidade), NT e RA para construir uma instalação artística interativa que conecta narrativas pessoais ao património local, transformando a interação comunitária em experiências imersivo-interativas complementadas pela utilização de uma app móvel de RA. Discute-

-se a interligação entre tecnologia, narrativa e património, bem como os desafios e oportunidades na aplicação destas abordagens à valorização do património cultural. Destaca-se, ainda, o potencial replicável deste modelo em diferentes contextos geográficos.

A interligação entre NT e RA revelou novas estratégias para aproximar as comunidades ao seu património, posicionando a Média-arte digital e o Design como catalisadores de valorização cultural. Esta investigação pretende contribuir para o debate sobre o uso das tecnologias emergentes na construção de experiências patrimoniais híbridas, oferecendo uma perspetiva teórica estruturada para a sua implementação.

## Referências / Bibliografia

Csikszentmihalyi, M. (2008). *Flow: The Psychology of Optimal Experience* (1.a ed.). Harper Perennial Modern Classics.

82

Geroimenko, V. (Ed.). (2018). *Augmented Reality Art: From an Emerging Technology to a Novel Creative Medium* (2.a ed.). Springer International Publishing. <https://doi.org/10.1007/978-3-319-69932-5>

Jenkins, H. (2006). *Convergence culture: Where old and new media collide*. New York University Press.

Manovich, L. (2002). *The Language of New Media* (1.a ed.). The MIT Press.

# Sensory Ethnography: The Interplay of Art, Ethnography, and Transmediality in Human Expression

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## Abstract

Ethnography has analyzed artistic products from various perspectives, from a self-reflexive approach to fieldwork to a tool for interaction and mutual understanding between the various participants in the research. At the same time, there is an exponential interest in this discipline to problematize the different ways of creating an ethnographic narrative, starting with its relationship with contemporary art. Currently, the emphasis is on a critical stance towards ethnographic work, especially at the disciplinary borders with art. However, the artistic object has asserted itself as a tool for individual expression, providing greater significance as a form of expression or materialization of existence (Manfredi, 2022, p. 178). Nonetheless, a phenomenological approach to the investigation of artistic practices can be analyzed with an emphasis on sensoriality, collaboration, and transmedia strategies during the process of producing and transmitting knowledge (Pink, 2009, p. 42). Thus, the conceptual and theoretical approaches discussed in this article seek to understand the ethnographer's experience of the artistic object and the methodological possibilities resulting from experimentation and understanding emerging forms of creation. By reflecting on the intersection between the practice and production of knowledge between art and anthropology, this analysis deepens the convergence between sensory experience, reflexivity, and artistic experimentation in the development of anthropological knowledge production.

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## References / Bibliography

Fradique, T., & Lacerda, R. (2022). *Modos de fazer, modos de ser. Conexões parciais entre Antropologia e Arte [Ways of doing, ways of being: Partial connections between anthropology and art]* (Portuguese edition). Etnográfica Press. <https://doi.org/10.4000/books.etnograficapress.8044>

Manfredi, F. (2022). *Para além das entrevistas logocêntricas: Quando o etnógrafo reforça a sua caixa de ferramentas com arte, símbolos e artefactos*. Etnográfica Press.

Pink, S. (2009). *Doing sensory ethnography*. SAGE Publications.

Pusseti, C. (2018). Ethnography-based art: Undisciplined dialogues and creative research practices. *Visual Ethnography*, 7(1), 1–12.

## Rethinking Media Art: On Zombie Media and Perpetual Instability

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### Abstract

The unstable boundaries of “media art” exist within overlapping territories that could variously be described as “new media art”, “digital art”, “electronic art”, or “computer art.” The meaning of terms such as “media art” seem to undergo constant renovation, shifting along with emerging technologies, practices, and discourses, never to be confined to a specific tool, technology, or ideology. As communication technologies become widely adopted in mainstream spheres, they often evolve, along with the ideas we associate with them. Newer forms of media join a seemingly ever-expanding and continually morphing realm of potential. But our contemporary post-digital condition also produces several forms of media that, for a variety of reasons, never thrive but also do not completely die out, becoming a sort of undead, zombie media. This landscape of alive, dead, and zombie media, entails a variety of increasingly heterogeneous approaches building from, reacting to, or hybridizing with other media forms. There is a need for critical reflection on the definition of media art, now that computers and computational systems are ubiquitous and a plurality of different media coexist with one another. The pervasive presence of computation in art and many aspects of daily life has led to its growing acceptance as a commonplace element, in contrast to its relative novelty as a field of artistic practice and theoretical inquiry during the early days of media art. Given the profound transformations that computation brought to the media landscape, rather than as a fixed set of criteria or a time period, we may instead view media art through the lens of instability, as a set of evolving practices that regard media and their technologies simultaneously as indispensable to art but also as phenomena that are continuously shaping, resisting, and building a poetic tension with art. While it’s possible for computation to generate new media forms that break from existing media conventions, it just as frequently commingles the present with the past, reviving or diverging from previous methods and tools. Currently, if many of the foundational forms of new media have lost their novelty, they have also been adopted by mainstream contemporary artistic practices, expanding its pool of available resources and influencing their meaning. Computational

processes don't always significantly inform the meaning or experience of an artwork, and the incidental presence of computation and computers in an artwork no longer cleanly distinguishes media art from other spheres of art theory and practice. But "media art" can nevertheless be a useful and meaningful term to describe a set of practices and stances, a community and its discourses regarding media and art. This paper will look at evolving theorisations of media art, from early discussions on media art and associated terms — such as new media art, digital art, etc. — and then delving into recent literature on media, technology, and art.

## References / Bibliography

Crawford, K., & Schultz, J. (2024). "The Work of Copyright Law in the Age of Generative AI." Grey Room 94.

Harman, G. (2020). *Art and Objects*. Polity Press.

86 Noë, A. (2023). *The Entanglement: How Art and Philosophy Make Us What We Are*. Princeton University Press.

Parikka, J. (2023). *Operational Images: From the Visual to the Invisual*. University of Minnesota Press.

Zylinska, J. (2023). *The Perception Machine*. MIT Press.

## Co-creative Processes: Between Human and Artificial Creativity

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### Abstract

The impact of technology on creative processes has been widely debated throughout history, particularly with regard to the interaction between human and artificial creativity. From the appearance of photography in the 19th century – which automated the creation of images giving rise to discussions about its legitimacy as an art form (Broeckmann, 2019; Hertzmann, 2018) – to the most recent innovations in artificial intelligence, the role of machines in creative processes has challenged boundaries and raised several questions, including: how can co-creative processes integrate human and artificial creativity? And what are the implications of these processes in creative practices?

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At the beginning of the 20th century, procedural art explored methods based on rules and randomness (Hertzmann, 2018), as in the experiments of Jean Arp or the instructions of Sol LeWitt, famous for his statement: “The idea becomes the machine that makes the art”. This movement shifted the focus from the artwork to systems, prioritizing the process over the result. With the advent of computers, artists such as Vera Molnár and John Whitney began to explore algorithms to generate art, leading to generative art, in which the role of the artist was transformed into a designer of processes that operate autonomously to complete the artwork (Galanter, 2003).

More recently, with the advances of AI, creative processes have evolved to include machine learning models capable of generating content from vast data sets. Tools such as Generative Adversarial Networks (GANs) and Large Language Models (LLMs) have become available on the internet, many of them for free, making sophisticated generative techniques accessible to experts and amateurs alike. However, these advances have

raised ethical and philosophical questions, such as the limits of human authorship, the originality and artistic value of works, as well as the meaning of creativity in co-creative contexts (Notaro, 2020).

In this sense, this presentation examines collaborative processes between the human and the artificial, critically examining how these interactions are redefining creative processes. By tracing a path from historical debates on photography and process art to contemporary discussions shaped by emerging technologies, it addresses concepts such as “machinic subjectivity”, “performative entities”, and “mixed-initiative creativity”. Moving beyond an anthropocentric view of creativity, the research explores plural and hybrid processes in which technology is more than a tool, emerging as a collaborative entity that actively reshapes creative practices.

## References / Bibliography

88

Broeckmann, A. (2019). *The machine as artist as myth*. *Arts*, 8(1), 25. MDPI AG. <https://doi.org/10.3390/arts8010025>

Carvalhais, M., & Ribeiro, D. C. (2023). *Aesthetics after the ontological turn: An ecological approach to artificial creativity*. *Critical Humanities*. Marshall University. <https://doi.org/10.33470/2836-3140.1031>

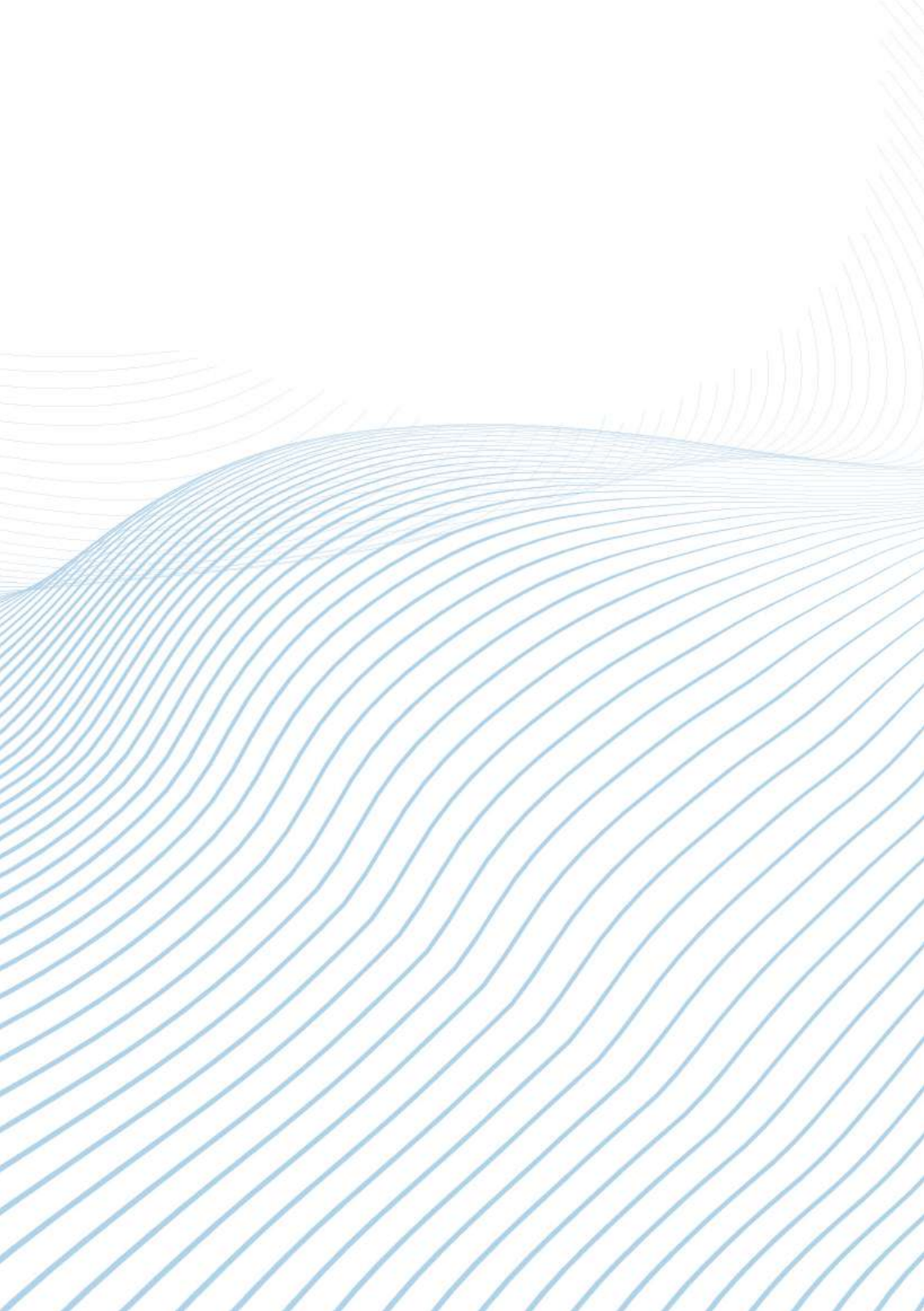
Galanter, P. (2002). *What is generative art? Complexity theory as a context for art theory*.

Hertzmann, A. (2018). *Can computers create art?* *Arts*, 7(2), 18. MDPI AG. <https://doi.org/10.3390/arts7020018>

Notaro, A. (2020). *State of the art: A.I. through the (artificial) artist's eye. Electronic Workshops in Computing*. BCS Learning & Development. <https://doi.org/10.14236/ewic/eva2020.58>









WORKSHOPS | OFICINAS

## Creating visual music with Videosync

by Tarik Barri



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**Synopsis** | Audiovisual artist Tarik Barri will show how to get started with Videosync, software that allows musicians and visual artists to create real-time visuals that evolve with sound — or stand independently as purely visual works. Videosync extends Ableton Live’s creative workflow into the visual realm. Videos can be looped, processed, warped, while visual instruments and effects work alongside Live’s audio devices, using MIDI, automation, and signal routing. You can combine live improvisation with precisely pre-composed elements, develop your own audiovisual interactions, and build unique visual worlds. Initially the domain of tech enthusiasts, with Videosync these techniques are now accessible to creators from all backgrounds.

**Biography** | Tarik Barri is a builder of audiovisual worlds. As an audiovisual composer and software developer, he programs his own tools for performance and composition. As co-founder of Showsync, he co-developed Videosync – software that extends Ableton Live into an audiovisual engine for controlling visuals alongside music. While his work is built on technical foundations, his approach is guided more by intuition than analysis – seeking that resonance between sound and image where they become inseparable. His work takes various forms including installations, videos and AV performances. Barri frequently collaborates with artists like Thom Yorke, Ben Frost, Nicolas Jaar, and Robert Henke.

## Exploratory Music & Creative Practices

by João Silva

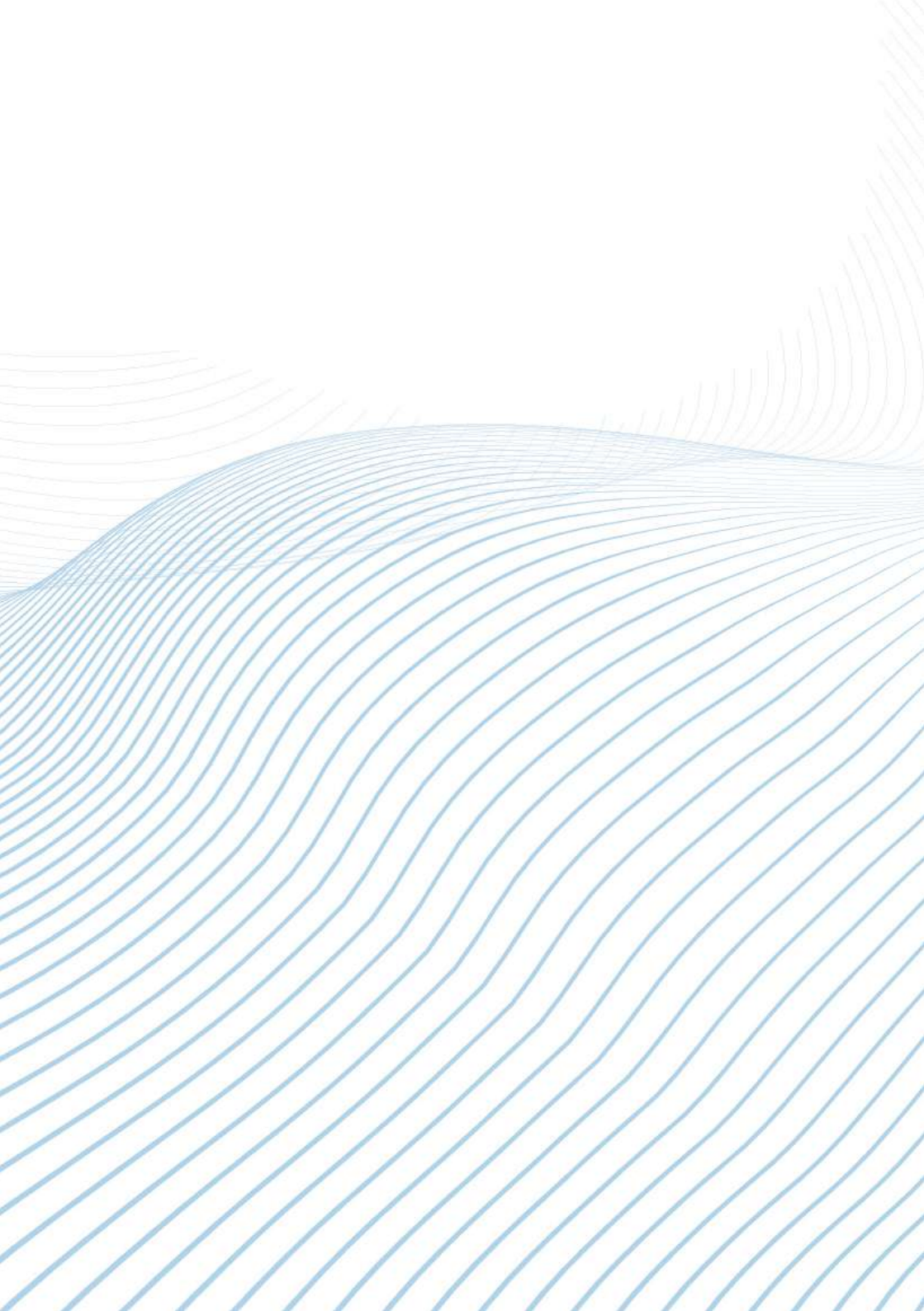


**Synopsis |** This workshop is designed for students seeking to deepen their practical knowledge in contemporary music creation and real-time creative performance: by applying their own understanding of musical elements in an interdisciplinary environment – characterized by extensive collaboration with their peers and interaction with visiting lecturers –, participants will be encouraged to engage both critically and creatively with music and sound, learning to convey their ideas and emotions, while reciprocally fostering responses to their own and others' musical materials.

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**Biography |** João Silva is a trumpeter, educator, and researcher with a diverse background in music. His eclectic and multifaceted career is particularly focused on the instrument's contemporary repertoire, having played at some of the most important festivals and venues throughout Europe. In recent years, he has developed a particular interest in music for trumpet and electronics, a genre he has delved into and explored, working together with composers and frequently performing in Portugal and abroad. João is also avidly dedicated to improvisation, participating in various experimental music performances, often combining multimedia elements and multidisciplinary intersections.







EXHIBITIONS | EXPOSIÇÕES

## ELABORARTE

Student Exhibition



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The “ELABORARTE” exhibition, produced for MULTIMODUS’25, showcases a selection of works by students from various curricular units of the Degree in Animation and Multimedia Design (DAM) at the Department of Arts, Design, and Animation of the Higher School of Technology, Management, and Design at the Polytechnic of Portalegre. This exhibition offers a behind-the-scenes look at the creative process, featuring sketches, storyboards, character and environment designs, animation tests, and other materials that trace the journey from concept to final execution. “ELABORARTE” celebrates the artistic process—embracing experimentation, trial and error, and moments of discovery. It highlights the dedication, talent, and creativity of students as they bring their stories to life, transforming ideas from paper to screen.

*Illustration by Petra Fernandes.*



## MODUS PRINT

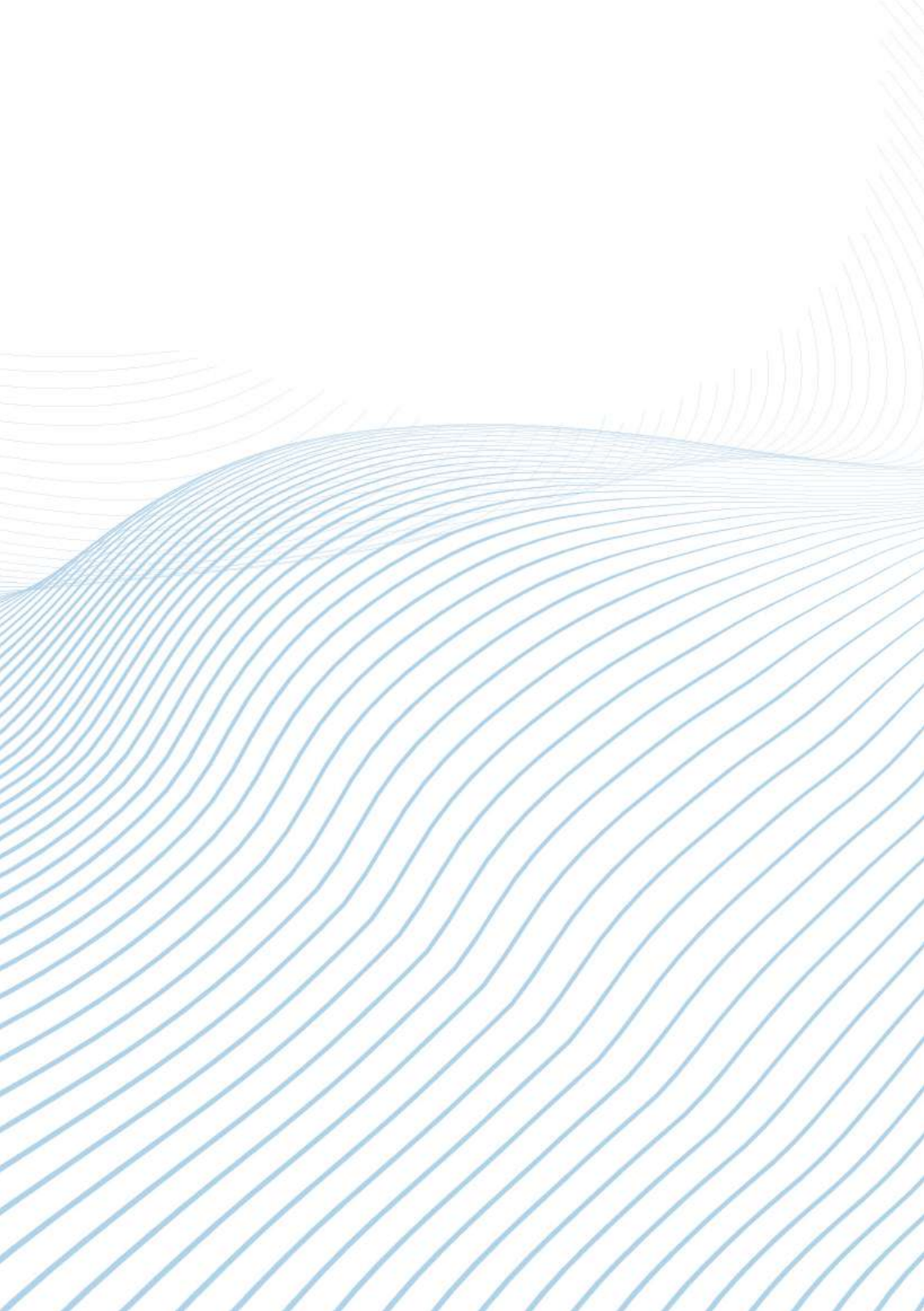
Student Exhibition



“4 States of Matter” is an abstract animation film whose main theme is “matter”. It is developed in four different acts/movements, each one with a distinct graphic and sound universe, globally constituting a journey through the four major states of matter: solid, liquid, gas and plasma. This exhibition displays the objects and equipment used in the production of the short film.

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*Image by Carolina Condeço*





AV PERFORMANCE | CONCERTO AV

## 30×N by @c + Visiophone

By Vitor Joaquim



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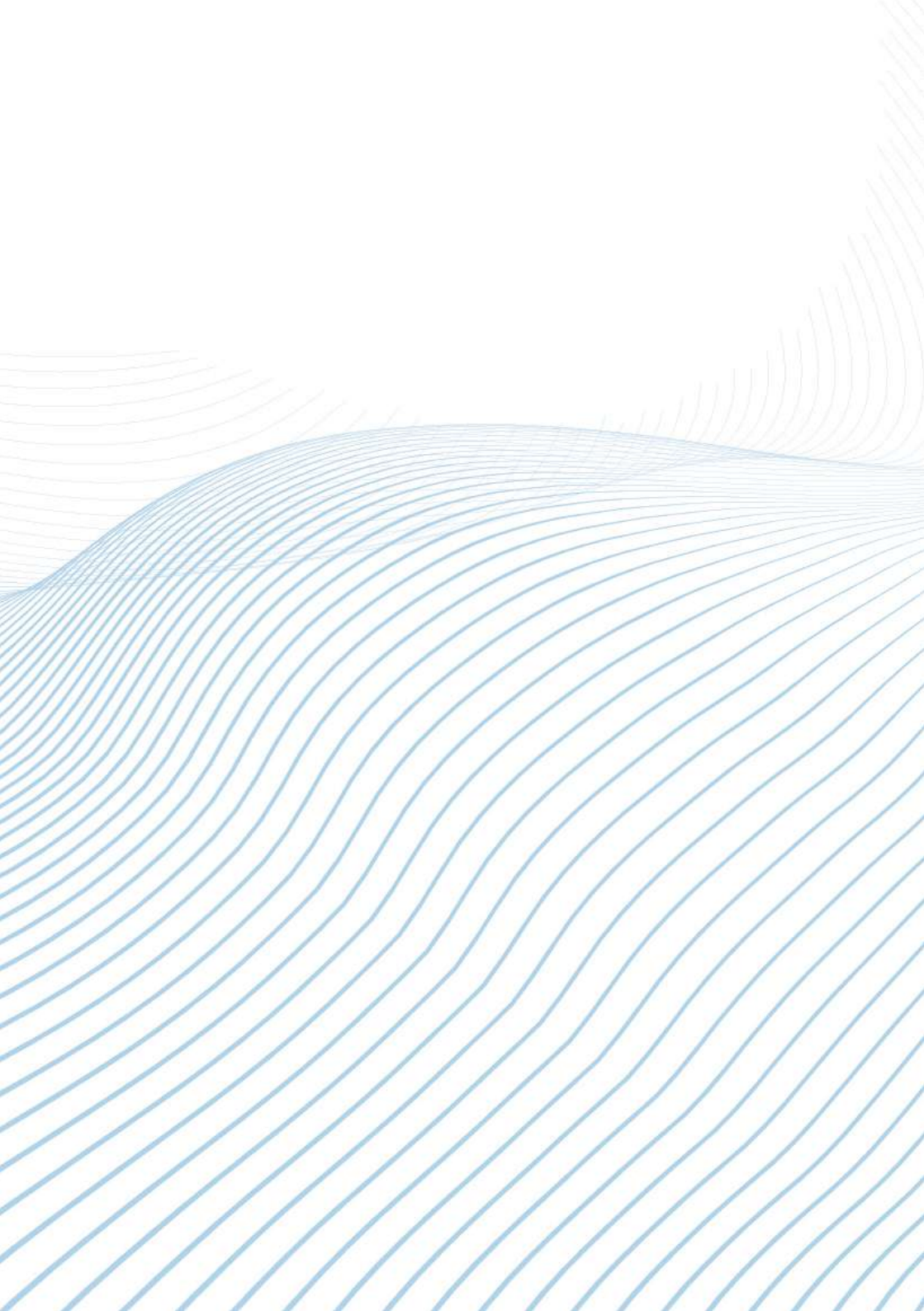
Synopsis | Audiovisual performance developed with a modular system with which the three performers interact in a continuous exercise of generative composition with sound, lights, and visuals. 30×N explores a territory in which computers are used not only as instruments or tools for visual and sonic production but rather as agents and creative partners. 30×N emerges from a meeting between performers, audience, and machines.

Artists | Miguel Carvalhais & Pedro Tudela: computers, sound; Rodrigo Carvalho: computer, lights, visuals.

<https://at-c.org/performances/30xn/>









FILM SCREENINGS | SESSÕES DE CINEMA

## MONSTRA Festival – Monstra à solta 2025

Extension – selected films



Since 2000, MONSTRA | Lisbon Animation Festival has as main goals to celebrate artistic transversality and to promote encounters between people with different artistic backgrounds by using the most basic and multidisciplinary language we know: the one of Animation Cinema. Throughout the years, the Festival has developed into a concept... MONSTRA on the Loose. Firstly, taking over Lisbon, in multiple places and finding publics of different interests and sensibilities. Then, MONSTRA is set loose across the country, visiting more than 40 cities each year.

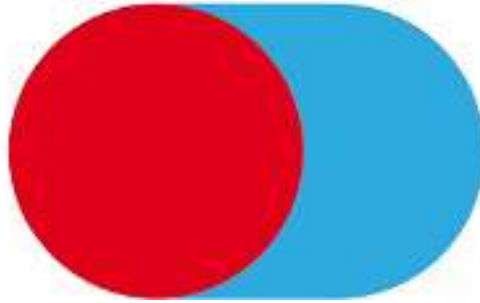
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## Shortfilms

Título	Ano	País	Duração	Realizador(es)
Circle	2024	South Korea	0:06:50	Yumi Joung
Croak Show	2024	India	0:04:12	Suresh Eriyat
Tennis, Oranges	2024	United States	0:10:53	Sean Pecknold
Extremely Short	2024	United States, Japan	0:05:18	Koji Yamamura
Silent Panorama	2024	Belgium	0:05:09	Nicolas Piret
Glass House	2024	France	0:05:16	Boris Labbé
The Night Boots	2024	France	0:12:29	Pierre-Luc Granjon
Brush Me	2024	Austria	0:02:00	Nikolaus Jantsch
A Night at the Rest Area	2024	Japan	0:11:34	Saki Muramoto
The Wild-Tempered Clavier	2024	Germany	0:07:22	Anna Samo

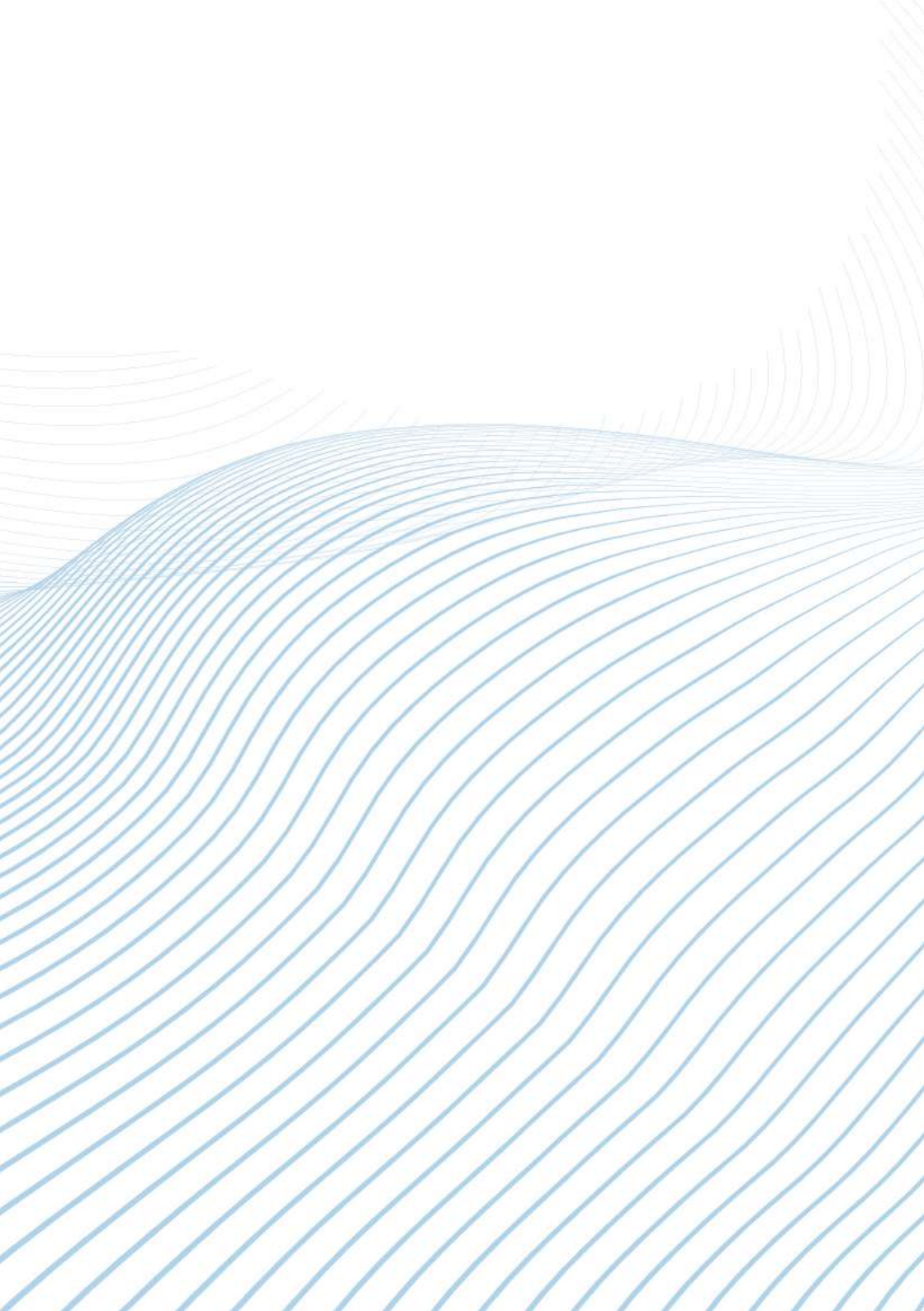
## **Punta y Raya Festival** Extension – Best of 2023



The world event for Abstract Art in Motion brings together the Punta y Raya community in various cities. The Festival celebrates the latest achievements in abstract film, animation & new media, and recovers & contextualises great classics, providing a creative meeting point between artists and general audiences. It invites experimenters to take the genre's possibilities to the limit, and motivates new audiences to take an active role in the creative process.

## Shortfilms

Título	Ano	País	Duração	Realizador(es)
4:3	2019	United Kingdom	0:04:48	Ross Hogg
dunes	2021	United Kingdom	0:01:12	Simon Holmedal
Evanescence	2022	Spain	0:04:42	Blas Payri
.-=+*#%@	2023	United States	0:03:23	Luke Shannon
Earl Grey - False Horns [INP031]	2020	Germany	0:05:32	Gilbert Sinnott
The Immortality of the Crab	2019	Italy	0:02:20	Giacomo Manzotti
Making Patterns Move	2021	United Kingdom	0:04:25	Ian Helliwell
Bildraum	2022	Switzerland	0:05:45	Dirk Koy
The Faults	2021	China	0:01:41	Gao Yang
Transcience	2022	Poland	0:04:34	Sylwia Zolkiewska
Hillocks	2020	United States	0:03:45	Maria Constanza Ferreira
Intersexion	2022	Canada	0:04:05	Richard Roger Reeves
Help Desk	2023	United Kingdom	0:03:10	Edwin Rostron
Pneumomania	2021	Iran	0:01:11	Ghazal Majidi, Behrang
Najafi				
O/S	2023	Germany	0:05:00	Max Hattler
Moving Movements	2023	Netherlands	0:05:52	Gwendolyn Lootens
&More	2022	Hong Kong	0:03:14	Ho Tsz-wing





CONFERENCE SESSIONS | PAINÉIS

## Conference Session 1

Moderator: Paulo Simões Rodrigues

Exploring social issues through image in a gastronomy experience

José Simões, Ricardo Bonacho

Exploring the Intersection of the Portuguese Revolution, Multimedia Technology

José Maia

Estereótipos e tabus nos processos criativos da representação erótica masculina

Nuno Lourenço

The landscape through the eyes and touch of Gabriela Albergaria

Laura Rebelo

## Conference Session 2

Moderator: Paulo Maldonado

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Communicating the City's Heritage through Design

Cristina Santos

Virtual Adufe - a VR musical experience

João Ramalho, Rui Dias

Artistic collaboration: lessons learned from the case study Five Centuries, 50 Years – A Remembrance of the University of Évora - Video Mapping, Music, and Theatre

Hugo Marques, João Cordeiro

Digital Interactive Systems in the Education of Children with Special Educational Needs and Disabilities

André Conde, Rui Travasso

Between Body and Code: A LMA driven Generative Audio-Visual Creation in the Performative Space of VR

Rui Antunes

### Conference Session 3

Moderator: Pedro Matos

Entre a arte e a ciência: nos bastidores do projeto Memórias da Azinhaga por Saramago – oito curtas documentais

Júlio Silva, Ana do Carmo, Manuela Silva, Maria Romana, João Cordeiro, Luís Santos

A crítica rancièriana da função mimética da “imagem”. Os desdobramentos do imaginário no regime estético das artes

Erika Rodrigues

Sound, Rhythm, and Tapestry - The Aesthetic Convergence of Sound and Image in Portalegre's Contemporary Tapestries

Telmo Lopes

Sound Spatialization Approaches as a Performance Tool

Suse Ribeiro

Pierre Hébert Performances e Resistência

João Mendes

### Conference Session 4

Moderator: Inês Secca Ruivo

Espaços Comestíveis

Bruno Silva, Francisco Babo

When Walls Speak Digital: Augmented Reality Meets Urban Art

Miguel Mazedo, Manuel Silva, Luís Teixeira

Fotografia Digital na Média-Arte: Criatividade, Tecnologia e Novos Paradigmas Visuais

Miguel Lima, Luís Teixeira, Mirian Tavares

Proximação: a Apresentação de uma Performance Interativa como Diluição das Fronteiras entre Arte e Vida

Jorge Marques

## Conference Session 5

Moderator: Paula Reaes Pinto

Immersive Storytelling: Exploring the Intersection of Spatial Audio and Live Theatre

Gerald Estadiou, Sandra Olga Ng Ka Man

Do and Understand: Rethinking the impact of participation via physical and digital mediums

David Thomas, Vicki Fong

Another gaze on Voice

Laetitia Kozlova

Three disrupting voices in Sound Studies: Deshays, Chattopadhyay and Ouzou-nian

Laetitia Kozlova

Being touched – the experience of sound and image: the challenges of innovation and sustainability in Art & Design

Ângela Lacerda-Nobre, Amandine Gameiro, Rogério Silveira, Miguel Cunha-Lima

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Symbiophone - interfaces for unheard communications

Jéssica Gaspar

Felix - The Cat - e a Música Contemporânea

Susana Porto

Subverting TikTok and Mass Media in Education: Leveraging Digital Media for Engaging Classroom Presentations and Innovating Pedagogical Strategies

Anna Unterholzner

## Conference Session 6

Moderator: Leonel Alegre

30×N: Composing for the modular, unrepeatable, and irreducible

Rodrigo Carvalho, Pedro Tudela, Miguel Carvalhais

The Materiality of Sound and Image in Interactive Digital Narratives: A Dynamic Feature of the Aesthetics of Behavior



Ana Monteiro, Miguel Carvalhais, Rui Torres

Narrativas Transmídia, Realidade Aumentada e Portais Narrativos: Uma Estratégia para a Valorização do Património Cultural

Ana Gouveia, Isabel Carvalho, Paulo Maldonado

Sensory Ethnography: The Interplay of Art, Ethnography, and Transmediality in Human Expression

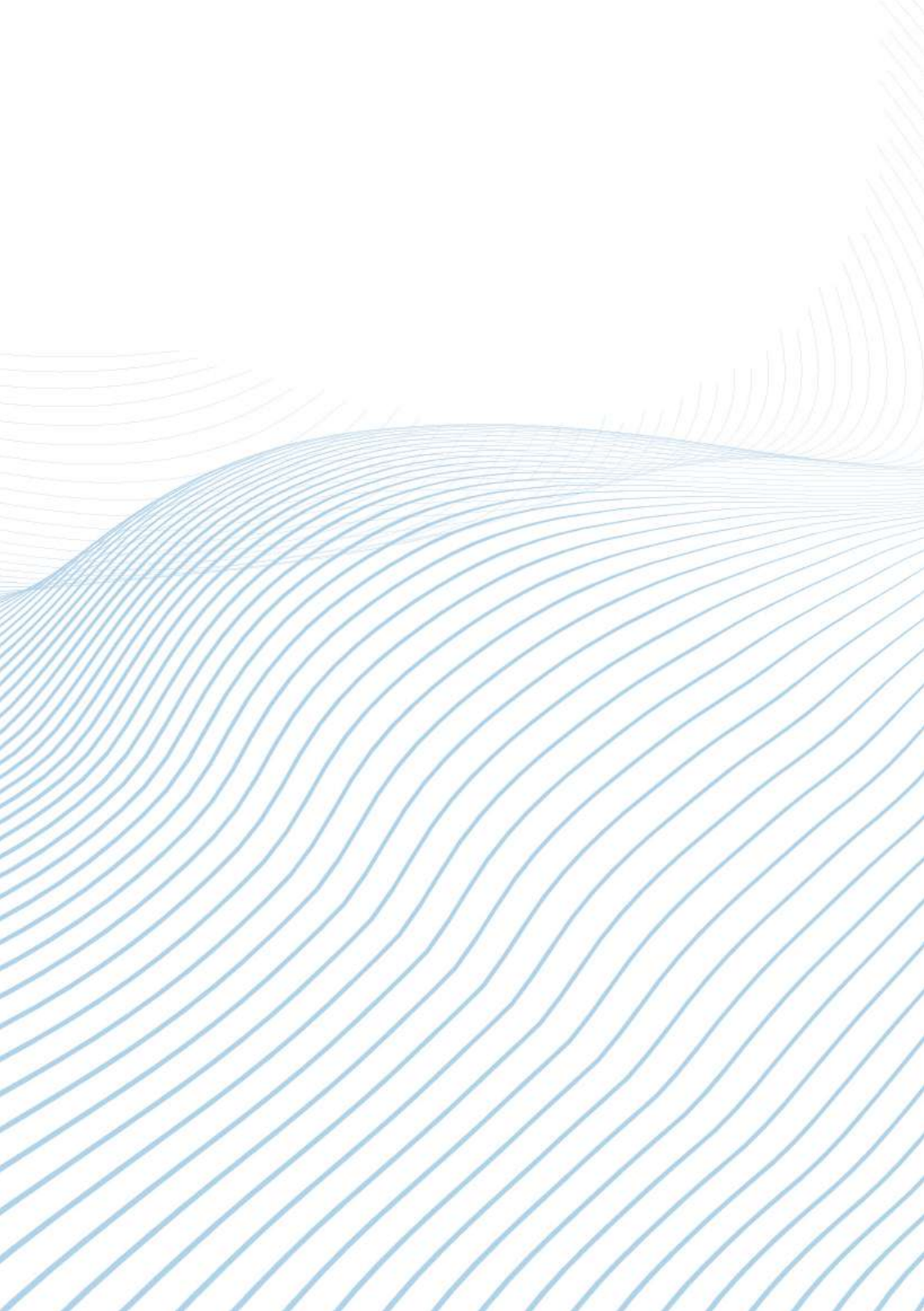
Rita Santos

Rethinking Media Art: on zombie media and perpetual instability

Rosemary Lee, Miguel Carvalhais

Co-creative Processes: Between Human and Artificial Creativity

Sara Orsi, Nuno Correia, Miguel Carvalhais





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PUNTO y RAYA FESTIVAL



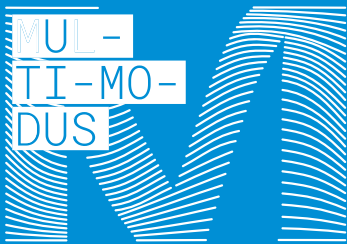
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